Safe to Surf? Cyberbullying, Online Risks and Parental Mediation: A Comparison Between Adolescent Reports and Parent Perceptions in the United Kingdom and South Africa

by

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Thesis submitted for the degree of Doctor of Philosophy in Psychology

to the School of Science in the University of Buckingham

May 2016

ABSTRACT

Information and Communication Technologies (ICTs) have altered our social environments and young people in particular have immersed themselves in the digital age. Despite countless benefits, younger ICT users are also being exposed to various online risks including contact with strangers, harmful content, sending or receiving sexual images or comments (i.e. 'sexting'), cyberaggression and cyberbullying. Parents are often unaware of the online spaces their children inhabit and struggle to implement effective mediation strategies. The study explored (i) online risks (contact, content and conduct risks), (ii) cyberaggression and cyberbullying, and (iii) parental mediation among adolescents (aged 12-18 years) and parents in the United Kingdom (UK) and South Africa (SA), representing a developed and developing country context respectively. The study was a mixed methods design and included initial focus group interviews with adolescents, parents and teachers to inform the subsequent quantitative data collection, which consisted of a cross-sectional survey design with a total of 1350 adolescent and parent participants. A follow-up longitudinal survey was conducted with a subset of the adolescent participants to assess their online behaviours and experiences one year later.

Key analyses included comparisons between adolescents in the two countries, adolescent gender and age trends, as well as comparing adolescent reports of their online behaviours and parent perceptions of those behaviours. Findings revealed that adolescents in SA were not unlike their counterparts in a more developed context in relation to access and use of ICTs and, while online risk behaviours were high in both countries, SA adolescents engaged in more online risks than UK adolescents. For example, adolescents in SA were twice as likely to engage in sexting behaviours and, while they were equally likely to talk to and meet online strangers in person as UK adolescents, they were more likely to have established romantic relationships with individuals met online. There was no difference in content risk exposure, which was exceptionally high in both contexts compared to previous research. Online risk behaviours increased with age of adolescents. Most adolescents experienced at least one form of cyberaggression, but UK adolescents were more likely to report that they

had ever been cyberbullied (43%) compared to SA adolescents (34%). No difference was found at follow-up, where one in four adolescents in both countries experienced cyberbullying in the past year. Females in SA experienced more cyberaggression and cyberbullying than males, but no gender differences were found in the UK. Online victimisation and perpetration were linked and many adolescents reported witnessing cyberbullying often while online. Experiences were associated with serious emotional effects. Higher parental mediation was reported by females and younger adolescents. Parents were found to consistently underestimate online risk behaviours as well as online victimisation and perpetration experienced by their children. They also overestimated mediation strategies in the home.

The study highlights the generational gap between adolescents and parents in terms of knowledge and use of ICTs and discusses the implications of this and the importance of including parents in online safety efforts. School mediation was higher in the UK and adolescents were twice as likely to have had online safety discussions or workshops at school in the past year compared to adolescents in SA. Moreover, key law and policy differences, particularly in relation to implementation, monitoring and accountability of policies, indicate different priorities placed on the issue between the two countries. The study also found a link between cyberbullying and traditional forms of bullying, arguing that cyberbullying should form part of broader anti-bullying and school safety strategies given the potentially serious psychological, emotional and behavioural effects, as well as its impact on the school climate. The issue of online safety should be given higher priority and approaches need to be strengthened in both countries, but especially in SA. The study highlights the importance of a holistic approach towards online safety, including government policy and campaigns, strengthening external support services through law enforcement and various organisations, school policy and support, parental education and involvement, as well as adolescents themselves.

This thesis is dedicated to Sreten, Snježana and Boško Popovac - my amazing parents and my incredibly wonderful brother.

Thank you for all your unwavering support and love, your constant encouragement, comfort and strength, and your unlimited patience and sacrifice that have enabled me to pursue my dreams. You have experienced all the ups and downs in this challenging professional and personal journey with me.

This is for you.

ACKNOWLEDGEMENTS

My deepest gratitude goes out to my supervisor, Dr. Philip Fine, whose knowledge, guidance, motivation, and advice throughout this process has been extraordinary. You provided me with a solid foundation on this journey and have been such an inspiration. I am so thankful for all your time and effort that has allowed me to see this research idea flourish into this final product. Thank you!

A special thank you to Dr Alan Martin, my co-supervisor. Always there with great advice, support and a smile, you have been a great source of encouragement throughout this process and I am grateful for all your input.

To my family, my aunt, uncle and cousins, who provided a home away from home whenever things got too overwhelming, and to my beautiful friends who have become family: Thank you so much for all your support during the toughest but also most exciting time in my life so far, for helping me stay grounded, and for putting up with me and letting me talk about my research for the hundredth time! I owe so much to all of you.

Finally, a very special thank you goes out to all the schools, teachers, parents and adolescents in the United Kingdom and South Africa who took the time to be a part of my research, providing an insight into their online behaviours, experiences and perceptions. This would not be possible without your contribution.

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DECLARATION

I hereby declare that my thesis entitled "Safe to Surf? Behaviours and Perceptions of Adolescents and their Parents regarding Cyberbullying, Online Risks and Parental Mediation: A Comparison between the United Kingdom and South Africa" is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text, and is not substantially the same as any that I have submitted, or, is concurrently submitted for a degree or diploma or other qualification at the University of Buckingham or any other University or similar institution except as declared in the Preface and specified in the text. I further state that no substantial part of my thesis has already been submitted, or is concurrently submitted for any such degree, diploma, or other qualification at the University of Buckingham or any other University or similar institution except as declared in the Preface and specified in the text.

Signature: Date:

“Adolescents are not monsters. They are just people trying to learn how to make it among the adults in the world, who are probably not so sure themselves.”

Virginia Satir

CHAPTER 1

INTRODUCTION

The rise in access to and use of Information and Communication Technologies (ICTs) over the past few decades has altered our social environments. Young people in particular have immersed themselves in the digital age, where the use of ICTs has become an integral part of daily life. In fact, adolescents spend greater amounts of unsupervised time with mass media than ever before (Padilla-Walker, Coyne, Fraser, Dyer, & Yorgason, 2012). Trends are showing a continued increase in access to ICTs, time spent online, and complexity of online behaviours of children and adolescents (Johnson, 2010a). One in three internet users are said to be below the age of 18 and, as the internet grows in the developing world, more and more children will comprise the online population (Livingstone, Carr & Byrne, 2016).

There are presently two conflicting views in relation to young people and ICTs which include its potential risks on the one hand and its potential social and educational benefits on the other (Johnson, 2010b). Despite the countless benefits associated with ICTs such as making rewarding social connections, opening up spaces for academic and social support as well as identity exploration, younger users are engaging in and being exposed to cyberaggression and cyberbullying, as well as various other online risks that include contact with strangers, viewing of risky content and sending or receiving sexually themed images or comments (i.e. 'sexting'). These risk behaviours and experiences are widespread. For example, a study in a number of European countries found that almost half of internet users aged between 9-16 years (46%) had experienced at least one online risk (Duerager & Livingstone, 2012). Moreover, according to Garaigordobil (2011, as cited in Palladino, Nocentini, & Menesini, 2012) who conducted a review of prevalence rates across countries, approximately 40% to 55% of students are involved in cyberbullying in some way either as victims, perpetrators, or witnesses. These online risk experiences can have a detrimental impact on children and adolescents, particularly if they continue for extended periods of time.

Parents, who may not be fully aware of the online spaces their children inhabit, often struggle to implement effective mediation strategies. Literature points to a generational divide between parents and children and vast differences in terms of technological knowledge. In fact, terms such as 'digital citizens' and 'digital immigrants' are used to describe children who were born into the digital age and parents who are learning to be a part of it (Palfrey & Gasser, 2013; Prensky, 2001). Consequently, parents often do not have a realistic perception of children's online experiences. For example, while 46% of 9-19 year olds had given out personal information about themselves online, only 5% of parents believed their child has done so, and more than half of young people (57%) had come into contact with pornography on the internet, while only 16% of parents believed this to be the case (Livingstone & Bober, 2006). Other research also indicated that parents underestimated their child's accidental exposure to sexual imagery and having been approached by a stranger online (Byrne, Katz, Lee, Linz, & McIlrath, 2014). In addition, Byrne et al. (2014), found that one in five parents did not know when their child had been cyberbullied. Another study found that 89% of parents reported no knowledge of whether their child had or had not been cyberbullied (Wong-Lo & Bullock, 2011). These studies are an indication that adults tend to be removed from children's online experiences and may be unaware of risk taking behaviours and experiences, leaving children to navigate online spaces with little guidance to protect them.

This thesis describes a study that examined adolescents' access and use of ICTs, the various online risk experiences they have encountered as well as the reported parental mediation strategies that exist at home. It also examined parents' perceptions of adolescent online behaviours and experiences as well as their reports of mediation strategies utilised in the home. The key focus of the study was comparing adolescent online behaviours and experiences in relation to cyberbullying, online risks and parental mediation with parent perceptions of those experiences in a developed (United Kingdom) and developing (South Africa) country. The study also included adolescent reports of mediation strategies relating to ICT use at school as well as teachers' perspectives relating to online safety in an initial part of the study. The

study, therefore, examined ICT use among adolescents as well as their two most immediate environments, namely, the home and school contexts.

The thesis consists of 11 chapters. The following chapter (Chapter 2) reviews the literature in the area and points out various gaps in research that guided the current study. The study was framed by the adapted Bio-Ecological Systems Theory proposed by Johnson and Puplampu (2008), acknowledging the individual, home, school and broader contexts in which human development occurs as outlined by Bronfenbrenner (1979) but also includes a Techno-Subsystem. This Theoretical Framework is described in Chapter 3, along with an outline of the current study that reflects both the theoretical framework as well as the gaps identified in the literature review. The Methodology chapter (Chapter 4) describes the research design, questionnaire design, pilot study, study samples and data collection and analysis of the study in detail. This is followed by the results and discussion of the initial Focus Group research that was conducted, which informed the subsequent parts of the study (Chapter 5). The Cross-sectional and Longitudinal results are then presented (Chapters 6 and 7 respectively), followed by an integrated Discussion for these two sets of results (Chapter 8). A General Discussion follows, highlighting the key findings across the different parts of the study as well as noting key law and policy differences between the two countries in relation to the key study variables (Chapter 9). Finally, the Study Limitations and Future Research (Chapter 10) and Conclusion and Recommendations (Chapter 11) are discussed.

CHAPTER 2

LITERATURE REVIEW

2.1. THE USE OF ICTs

2.1.1 Adolescence and the use of ICTs: Positive social development

Technology has evolved dramatically over the past few decades, and children growing up in what is now termed the 'digital age' have access to a range of different technologies, with even toddlers increasingly playing games on tablets or Skyping with family members across continents. Adolescents' use of ICTs is also very high and on the rise globally, increasing by around 400% between the year 2000 and 2009, particularly in affluent Western societies (Denissen, Neumann, & Zalk, 2010). Over a decade ago in 2000, a study found that 70% of children and 90% of adolescents in the US used email, and a third of children and half of adolescents visited chat rooms (Turow & Nir, 2000). In 2004, 75% of 9-19 year olds in the UK had access to the internet from a computer at home and nearly all children of the same age (92%) had access to the internet at school (Livingstone & Bober, 2004). Apart from access at home and at school, two-thirds (64%) of UK children also accessed the internet from another location such as a friend's home, a public library, or internet cafe (Livingstone & Bober, 2004). The same study also found that adolescents (12-17 years) have greater access to the internet in all locations compared to younger children (9-11 years) or young adults (18-19 years) (Livingstone & Bober, 2004). These older studies indicate the extent of ICT access among young people even a decade ago, which has only increased to date. For example, the Office for National Statistics (2015) found a clear increase in internet access and use between 2006 and 2015 in the UK, while Internet Live Stats (2016) traced a rapid global increase in internet use from 1993 to 2016. In Europe, 81% of households had internet access in 2014, and homes with dependent children had consistently higher internet access (Eurostat, 2015). Moreover, the highest proportion of daily internet users were aged 16-19 year olds (Eurostat, 2015). Finally, in the US, 92% of adolescents accessed the internet daily and 24% reported that they are almost constantly connected, largely through mobile devices (Lenhart, 2015).

The social impact of ICT use is particularly important to consider in adolescence since this developmental period involves significant biological, psychological and social changes (Mesch & Talmud, 2010; Smith, Cowie & Blades, 2015; Newman & Newman, 2012). During adolescence, peer relationships become central in an individual's emotional and social development. While still important, parental interaction is reduced and social aspects take on a greater importance, with peers becoming confidants, providing advice and serving as models of attitudes and behaviours (Mesch & Talmud, 2010). Positive peer relationships have been found to result in a good sense of self-worth, a healthy self-esteem and enhanced skills for romantic relationship formation (Gavazzi, Anderson, & Sabatelli, 1993). From this standpoint, ICTs facilitate access to opportunities, knowledge, resources and social capital which may otherwise be difficult to acquire for some (Mesch & Talmud, 2010). While parents' main reasons for purchasing a computer and connecting to the internet is to facilitate access to information for their children's academic development, adolescents tend to experience the internet primarily as a social and entertainment tool (Mesch & Talmud, 2010). In fact, the use of communication technologies in particular enhances the social element that becomes important during adolescence. ICTs provide additional means through which to maintain relationships by providing continuous contact with friends and serve as ways to expand social circles by talking to individuals across geographical boundaries and outside of school and neighbourhood social contacts, allowing for access to individuals with diverse cultures, racial identities and political views that adolescents may not otherwise have a chance to meet (McCarty, Prawitz, Derscheid, & Montgomery, 2011; Mesch & Talmud, 2010; Wolak, Mitchell, & Finkelhor, 2003).

From an Eriksonian perspective, adolescence is a period where individuals deal with issues and questions relating to their identity and explore various aspects of their identity (e.g. Erikson, 1970), therefore, online encounters in general can play an important role in socialisation (Denissen et al., 2010). Experimenting with self-presentation online is argued to be more about a necessary and constructive identity exploration rather than about deceit, with adolescents sometimes pretending to be a different gender, age or appearance (Livingstone, Haddon, & Görzig, 2012). Adolescents are able to explore their identities online by using different personas,

they can share feelings and ideas more easily without fear of embarrassment, vulnerability or fear of disapproval that may occur in the real world (Denissen et al., 2010; Mesch & Talmud, 2010). Moreover, the invisibility of certain features such as physical appearance, shyness or social anxiety that can act as barriers to establishing relationships in the real world are not present online, thereby facilitating relationship formation (McCarty et al., 2011; Mesch & Talmud, 2010). Due to potential anonymity online, individuals also tend to share more information online than offline. This online self-disclosure can result in relationships developing rather quickly in online interactions, and an increase in friendship quality is associated with increased well-being and adjustment during adolescence (Valkenburg & Peter, 2009). Thus, social motivations for ICT use include self-experimentation (e.g. exploring different personality traits or identities and testing out people's reactions), social compensation (e.g. overcoming shyness or communication difficulties), and social faciliation (e.g. in order to faciliate relationships such as friendships or dating) (Livingstone et al., 2012).

In a national US study, 25% of 10-17 year old internet users reported forming online friendships in the past year, while 14% formed close online friendships or romances (Wolak, Mitchell, & Finkelhor, 2002). Females aged 14-17 years were most likely to have formed close online relationships (Wolak et al., 2002). Online relationships progress over time through a cautious process of establishing trust through progressive disclosure of personal information (Mesch & Talmud, 2010). Expanding interpersonal relationships in online spaces can occur as a result of meeting strangers in chat rooms or forums, or mutual friends being virtually introduced. Individuals can also easily locate others with whom they share similar interests due to specialised chat rooms or forums where feelings and ideas can be shared about a diverse range of topics and can lead to positive socialisation and the development of prosocial attitudes as well as enhanced social relationships and social support (Mesch & Talmud, 2010; Wolak et al., 2003). Thus, ICTs can be viewed as providing an additional sphere within which development occurs. Access and use of ICTs might vary across contexts, however. The following section highlights some key differences between the two countries in the current study in terms of access and use of ICTs and the broader economic and social indicators that might influence these.

2.1.2 In Context: Differences in ICT use between the United Kingdom (UK) and South Africa (SA)

SA is classified as a developing country, and is one of only five African countries with an upper middle income economy (United Nations, 2016; World Bank, 2016). It has a population of 54 million and a GDP of 350.1 billion US dollars (World Bank, 2016). While seen as a developed country in contrast to the rest of Africa, SA is still showing a major socio-economic divide within its population as a result of differential access to resources between the population groups caused by the Apartheid era. This is evident in the country's high Gini coefficient[1] (63.4) which was last estimated in 2011 (World Bank, 2016). The country also has a high unemployment rate at 24.9% in 2013, where latest data is available (World Bank, 2016). The UK, on the other hand, is classified as a major developed, high income country with a population of 64.5 million and a GDP of 2.9 trillion US dollars (World Bank, 2016). The country has a significantly lower Gini coefficient (32.6 in 2011) and unemployment rate (7.5% in 2013) compared to SA. The data from the World Bank and the United Nations provides a clear indication of the differences in context between these two countries. Apart from obvious social differences such as eduation, unemployment, poverty and healthcare, in relation to the current study context it is evident that the differences in the way in which these two countries are classified may involve a clear socio-economic digital divide resulting in differential access to ICTs. These differences can also manifest in the way in which online safety is prioritised between the two countries relative to other social problems faced.

In terms of technological infrastructure and access, data from the United Nations (2016) showed that just under half of the SA population were using the internet in 2013 (48.9%), a figure which doubled since 2010 (24%). In the UK, most of the population was using the internet in 2013 (89.8%), only slightly higher than in 2010 (85%) (United Nations, 2016). These findings highlight the differences in access to and infrastructure in technology between the two countries, as well as the rapid uptake of ICT use in the developing context. Although fewer homes have internet

[1] Also known as the Gini index or Gini ratio, the Gini coefficient is a statistical measure of income distribution within a country and indicates the level of inequality within its population from 0 (perfect equality) to 100 (perfect inequality) (World Bank, 2016).

access and there is still a significant lag with regard to ICT infrastructure as well as computer access in SA (Berger & Akshay, 2012), adolescents and adults often access the internet on their mobile phones which is considered to be the 'first screen' and key entry point for internet adoption, especially in developing contexts (Calandro, Stork, & Gillwald, 2012). Payne (2012) also notes that, despite deficits in resources, many South Africans have access to mobile phone technology largely as a result of more affordable broadband prices and smartphone contracts that enable access to the internet. For example, SA has recorded rapid growth of mobile internet between 2004 and 2009, with 10.1 million internet users compared to only 4.5 million computer-based web users (Walton, 2011). Research looking at those aged 15 years and older found that internet use increased from 15% in 2007/2008 to 33.7% in 2011/2012 (Calandro et al., 2012). In addition, 51% had a mobile phone that was capable of accessing the internet (Calandro et al., 2012). When asked about where they accessed the internet most in the past 12 months, 70.6% indicated that they did so using mobile phones (Calandro et al., 2012). In fact, comparative data shows that SA has the highest rate of mobile technology use and mobile social networking on the continent (Berger & Akshay, 2012; Calandro et al., 2012). Access was particularly high among adolescents, with 81.1% owning a mobile phone and 46.2% having internet access on their mobile phone. In addition, 54.3% owned a computer, laptop or tablet (Burton & Leoschut, 2012).

While ahead of other African countries, SA is still developing in relation to technology in Europe and the US. In the UK, most of the population access the internet daily (73%), with highest use in the age range of 16-24 years where 89% accessed the internet on their mobile phones (Office for National Statistics., 2013). Despite the clear differences in access to and use of technology between the two countries, data in both countries shows that internet use is growing. Differential access to technology may result in differences in online risk exposure among adolescents in the two countries. The level of priority placed on addressing the issue may also vary as a result of some of the country differences. However, there is limited research in developing countries relating to online safety concerns, particularly in Africa, and no known research to date that explicitly examines differences in online behaviours and experiences between developed and developing contexts (rather than

examining cultural differences). Apart from broader contextual differences discussed here, there are also differences between the ways in which adolescents and adults use ICTs and their technological knowledge in this regard. The following section examines this.

2.1.3 Differences in ICT use between Adolescents and Parents

One of the key discussions in the literature is the generational gap between children and adults in knowledge and use of ICTs. While adults tend to use ICTs mainly for web research and email, children use it mainly for entertainment and for communication by interacting on blogs, social networks and instant messaging (Von Solms, 2011). The more interactive nature of adolescent online use is argued to present particular risks to young people (Schrock & Boyd, 2008). Research into social networking also found that younger people tended to rely heavily on these sites compared to older adults (Haight, Quan-Haase, & Corbett, 2014). The differences in ICT use between the generations means that some parents may not fully understand the online activities their children engage in or the online risks associated with these activities.

Further differences occur in that adolescent internet literacy develops as they get older but their tendency to share personal information online also increases indicating limited understanding of the risks involved (Mesch & Talmud, 2010), which is not the case with adults. According to Von Solms (2011), the behaviour of children and adults in the cyber world can be explained in terms of *Knowledge vs. Wisdom*. Young people tend to acquire technological skills very quickly (termed 'knowledge'), but they may have poor judgement in the online environment which results in online risk taking behaviours. Adults, on the other hand, may not necessarily have the same extent of 'knowledge' of ICTs as children do, but they are more likely to make better judgements and more mature and logical decisions when using ICTs (termed 'wisdom') (Von Solms, 2011). Thus, despite often being more proficient than adults, adolescents tend to engage in more risk behaviours.

Apart from differences in the way ICTs are used and engagement in online risks, Livingstone and Bober (2006) argue that the internet is unusual in that expertise between the parent and child generation is reversed, i.e. parents are positioned as naïve while children are authorities on the technology. Terms such as 'reversed socialisation' have been used to describe this (Grossbart, Hughes, Pryor, & Yost, 2002). Indeed, in many households children are assigned 'cyberchores' by their parents that include helping parents to upload pictures, to send emails to relatives or to assist with online searches (Mesch & Talmud, 2010). In nearly half of these cases adolescents stated that they performed 'cyberchores' because their parents lacked the skills to do the tasks themselves (Gouws, 2014; Mesch & Talmud, 2010). Thus, differences in technological skills impact on parental awareness and also have major implications in adopting effective mediation strategies in the home (see section 4 in this chapter). These generational differences are a barrier to online safety.

2.2. RISK PERCEPTION AND ONLINE RISKS

2.2.1 Risk Perception Research Over the Past Few Decades

Risk perception captured the attention of researchers in the 1970s, with research centres focusing specifically on the cognitive dimensions relating to the estimation of risks being established in Europe and the US. Researchers such as Slovic (e.g. Slovic, Fischhoff, & Lichtenstein, 1979, 1980, 1985, 1986) conducted various studies exploring decision-making, knowledge of risks, perceived controllability of risks and the underestimation of some risks relative to others (Boholm, 1998). Vast differences in risk perception were found between expert opinions and public assessments, which brought to attention the notion of the 'social amplification' of risk (Kasperson et al., 1988).

According to Kasperson et al. (1988):

> *"... risk events interact with psychological, social, and cultural processes in ways that heighten or attenuate public perceptions of risk and related risk behavior"* (p. 178/179).

This suggests that individual assessments of risks, knowledge and experience of risks, and the related behavioural patterns are embedded within group perceptions of risks in communities, society and culture. Thus, individual information processes and traditional cost-benefit analyses take place within broader institutional structures and social-group behaviour which shape individual perceptions and, similarly, individual responses also shape the social experience of risk (Kasperson et al., 1988). This implies that both direct personal experience as well as indirect experience through information that is received about a risk or risk event by experts, risk management institutions, news media, public agencies, political groups and informal networks of family and friends impacts on an individual's level of fear and perceived controllability of that risk (Boholm, 1998; Kasperson et al., 1988). According to Slovic and Peters (2006), individuals' risk analysis in daily life most often occur quickly and automatically based on the feelings that arise from what is known about a particular risk through direct and indirect experience. For example, fear tends to amplify risk while anger attenuates it (Slovic & Peters, 2006). From this example it is clear that feelings about risks are an important consideration for risk perception research as they influence judgments about risky situations (Alhakami & Slovic, 1994). Individuals with positive feelings about a behaviour or situation tend to perceive the risks as being lower and the benefits higher, whereas individuals with negative feelings about the activity tend to view the risks as being higher and the benefits lower (Slovic & Peters, 2006). This is referred to as the affect heuristic (Finucane, Alhakami, Slovic, & Johnson, 2000).

Over the past few decades the field has grown extensively with a wide range of risk activities being studied including alcohol use (Hampson, Severson, Burns, Slovic, & Fisher, 2001), cigarette smoking (Popovac, Mwaba, & Roman, 2011), wearing of seatbelts (Stasson & Fishbein, 1990) and sexual activity (Kowalewski, Henson, & Longshore, 1997). Risk perception on the internet has largely been studied from a marketing or computing perspective in areas such as online shopping (e.g. Kim, Xu, & Gupta, 2012; Sinha & Singh, 2014), online banking (Martins, Oliveira, & Popović, 2014; Roy, Kesharwani, & Singh Bisht, 2012) and cloud computing (Brender & Markov, 2013). Turow and Nir (2000) examined online risk perception of adolescents and parents in terms of attitudes towards the internet and information privacy. Only

one psychological study to date has examined risk perception among adolescents in the area of cyberbullying (Chapin, 2014) indicating a clear scarcity in research in this area, and no known studies have examined risk perception in other types of online risks.

Generally research has found that people make different estimates about risks for themselves, their family, or people in general (Sjoberg, 2000). In fact, people often claim that they are at lower risk than others who engage in the same risk behaviour (Sjoberg, 2000). This phenomenon, termed 'risk denial', 'unrealistic optimism' or 'optimistic bias', is a prominent feature of risk perception research. The one study examining risk perception and cyberbullying also found that adolescents exhibited optimistic bias by perceiving themselves to be at lower risk of being cyberbullied compared to their peers (Chapin, 2014).

2.2.2 Risk Perception During Adolescence

Extensive research focuses specifically on adolescent risk perception and has found that optimistic bias holds true in this age group. Generally, adolescents who participate in an activity perceive the risks to be smaller, report less fear of the known risks and view the risks as more controllable than adolescents who do not participate in that activity (Benthin, Slovic, & Severson, 1993). In addition, adolescents who engage in a specific behaviour report greater knowledge of the known risks and perceive greater benefits in relation to risks for that behaviour, greater peer pressure to engage in the behaviour, as well as a higher rate of participation in the behaviour by others (Benthin et al., 1993). They also have less desire for the activity to be regulated by rules or authorities (Benthin et al., 1993). In line with Benthin et al.'s findings (1993), Gardner and Steinberg's (2005) experimental study found that adolescents tended to take more risks and focused on the benefits rather than the risks when decisions were made in peer groups compared to when alone. This is supported by subsequent research (Albert, Chein, & Steinberg, 2013). Moreover, risk taking and risky decision-making was found to decrease with age (Gardner & Steinberg, 2005). According to a study conducted with children, adolescents and young adults,

adolescents showed more willingness to make risky decisions compared to both children and adults (Paulsen, Platt, Huettel, & Brannon, 2011). This indicates that adolescence is a particularly vulnerable period for risk taking.

Adolescent risk behaviour is argued to be attributed to their exaggerated feelings of invulnerability which is seen as a consequence of their cognitive development during this period. During the process of developing self-identity and increasing independence, adolescents often engage in experimentation and risk taking and tend to experience peer pressure (Strasburger & Wilson, 2002, as cited in Youn, 2005). However, Cohn et al. (1995) argue that studies on risk perception also reveal strong optimistic bias among adults, implying that adolescents are not unique in this phenomenon, nor is their developmental stage the sole contributor to their risk taking behaviours. According to these authors, many adolescents do not see their behaviour as being risky or unsafe. Thus, it is more a case of a failure to perceive situations as dangerous as opposed to a desire to pursue risks which is often associated with adolescence (Cohn, Macfarlane, Yanez, & Imai, 1995; Wolburg, 2001). As a result of failing to appreciate risk as well as the optimistic bias noted in various studies, it is often considered a difficult undertaking to warn adolescents about the possible danger linked to risky activities (Greene et al., 2000).

A more recent study by Steinberg (2010) and the general advances in developmental neuroscience indicate that risky behaviour in adolescence is the result of the interaction and changes in two neurobiological systems during this period: a socio-emotional system (involving the limbic and paralimbic areas of the brain) and the cognitive control system (involving the lateral prefrontal cortex and parietal cortex). The socio-emotional system is linked to an increase in reward seeking behaviour due to increased dopaminergic activity in early adolescence (Steinberg, 2010; Strang, Chein, & Steinberg, 2013). This occurs prior to the structural maturation of the cognitive control system which is linked to more advanced impulse control and which develops more gradually across adolescence (Steinberg, 2010; Strang et al., 2013). Thus, this dual systems model posits that adolescent risk taking occurs due to the temporal gap between the development of these two systems, creating a heightened

period of vulnerability in middle adolescence (Steinberg, 2008, 2010). The findings in Steinberg's (2010) research show that, while impulse control tends to improve throughout adolescence and young adulthood (with a linear decline in impulsivity between ages 10 and 30), reward-seeking is higher in middle adolescence than before or after (Steinberg, 2010). This is in line with the notion of the inverted U-shaped pattern of risk taking throughout development, i.e. risky behaviours are highest in middle and late adolescence than during childhood or adulthood (Livingstone et al., 2012; Steinberg, 2010).

These studies on risk perception can also be extended to online spaces. For example, findings by the Annenberg Public Policy Center in the US show that, at least in theory, the majority of participants (79%) aged 10 to 17 years old were concerned about their privacy online but they were willing to give out personal information in order to receive a free gift (Turow & Nir, 2000). This finding provides evidence for the notion of reward seeking behaviour and impulsivity during adolescence. This finding also links to the Protection Motivation Theory outlined by Rogers (1975), which suggests that individuals manage risks by weighing up the risks and benefits of a behaviour (i.e. cognitive appraisal of risks). Individuals are motivated to protect themselves when they perceive the risks of a behaviour to be high and the protection motivation decreases when the benefits are appraised as outweighing the risks of the behaviour (Rogers, 1975). This theory was utilised by Youn (2005) in research on adolescent privacy protection online and their willingness to give out information about themselves online. The study findings were consistent with theories on risk perception as online information disclosure was found to be linked to risk and benefit appraisal among adolescents. More specifically, benefit appraisal was more important in determining online information disclosure suggesting that adolescents are more influenced by the benefits they may receive from disclosing information rather than the risks associated with it (Youn, 2005). This may account for why adolescents were found to be more likely to give out personal information about themselves online in order to win a prize in Turow and Nir's (2000) study. Furthermore, in a more recent study, adolescents' perceived control over risks was negatively associated with perceived privacy risks in sharing personal information on social networking sites, which impacted their information sharing behaviours (Hajli & Lin, 2016). Thus, apart

from weighing up costs and benefits, perceived controllability over risks plays an important role in risk perception in online activities. In addition, adolescence is a period where peer relationships become central and research has shown that there is a social influence effect on risk perception which decreases with age (Knoll, Magis-Weinberg, Speekenbrink, & Blakemore, 2015). More specifically, younger adolescents were more influenced by peer perceptions of risks compared to older adolescents and adults (Knoll et al., 2015), highlighting the potential for normative beliefs related to certain online behaviours among adolescents which influence behaviours. Also referred to as subjective norms, this was found to be the most important determinant of accepting strangers as friends on social networking sites, for example (Heirman et al., 2016). Specific types of online risks and risk taking behaviours are discussed in more detail in the following section.

2.2.3 Online Risks and Risk Taking Behaviours

Mobile phones and the internet provide a multimedia environment that allows access to a vast range of content and opportunities for the positive socialisation of children as was discussed in the beginning of this chapter. Unfortunately, these opportunities do not exist without numerous potential risks, and it appears that globally many children are exposed to online risks and partake in risk behaviours. A study of a number of European countries found that almost half of internet users aged between 9-16 years (46%) had experienced at least one online risk (Duerager & Livingstone, 2012).

Risks to children and adolescents include (1) access to unreliable or harmful information, (2) the dangers associated with giving out personal information or setting up meetings with online strangers, (3) the negative impact of exposure to unsolicited pornography and violence, (4) the negative impact of exposure to material that incites hate for a specific race, ethnicity or religious group, as well as (5) the occurrence of sexual solicitation, harassment or cyberstalking (Bullen & Harré, 2000; Film and Publications Board, 2011). In addition to these types of online risks, studies have also listed online risks in terms of their impact on children's development and well-being. More specifically, according to Valcke, Bonte, De Wever and Rots (2010), online

risks can have a considerable negative impact on (1) social relations (through cyberbullying and cyberstalking); (2) emotional wellbeing (through unwanted exposure to sexual or violent content); (3) physical wellbeing (through more time being spent behind screens rather than physical activity which may be linked to obesity); and (4) time management (through increased time spent online children may neglect school tasks or show symptoms of internet addiction). These potential effects of exposure to online risks underscore the importance of research in this area.

The EU Kids Online research conducted with research teams across 21 European countries examining childrens' online behaviours and experiences (e.g. Livingstone & Bober, 2005; Livingstone & Haddon, 2009; Livingstone, Kirwil, Ponte, & Staksrud, 2013) outlines three types of online risks, namely, content, contact, and conduct risks. These are discussed in the following sections.

2.2.3.1 Content Risks

Problematic content on the internet varies widely and includes pornography, violence and hate or racism, which can be detrimental to psychological and emotional well-being particularly if adolescents are not developmentally mature enough to make sense of the content they see. Research suggests that one in five children (21%) aged 11-16 years reported having come across at least one type of potentially harmful user-generated content (Livingstone, Kirwil, et al., 2013). In New Zealand, two in five (40%) primary school children reported being shocked by inappropriate online content such as violence, sex and racism (Valcke, Schellens, Van Keer, & Gerarts, 2007).

The most widely researched content risk to date is exposure to online pornographic content. Two separate studies in the US found that a quarter of adolescents had been exposed to this content online (Hinduja & Patchin, 2010a; Mitchell, Finkelhor, & Wolak, 2005). More than half of 9-19 year olds in Europe (57%) (Livingstone & Bober, 2006) and 38% of middle and high school adolescents in Taiwan had ever been exposed to online pornography (Lo & Wei, 2005), while 42% of 10-17 year olds in the US had been exposed to online pornography in the past year (Wolak, Mitchell,

& Finkelhor, 2007a). Furthermore, retrospective studies among university students found that 39% in a Spanish sample reported exposure to online pornography prior to the age of 18 (González-Ortega & Orgaz-Baz, 2013), a figure that was significantly higher in the US (73%) (Sabina, Wolak, & Finkelhor, 2008). Similar to the US study, 71% of Taiwanese adolescents had been exposed to online pornography (Chen, Leung, Chen, & Yang, 2013). Although prevalence rates vary, it is clear that exposure to online pornography is widespread.

Most research on exposure to violent content focuses on online games, particularly on its link to aggressive behaviours (Hasan, Bègue, Scharkow, & Bushman, 2013; Yang, Huesmann, & Bushman, 2014), but very little research examines violent exposure to abusive or aggressive video clips. Violent content of this nature was a top concern for 18% of children and adolescents, and many expressed shock towards aggressive and gory online content they had witnessed (Livingstone, Kirwil et al., 2013). As such, although more focus is placed on other types of online risks at present, this content risk is noteworthy given the findings from Livingstone et al. (2013) and the high availability of such content on websites such as YouTube. Exposure to hateful content is also of concern, with 60% of 15-30 year olds in the US seeing hate speech online that was related to ethnicity and 45% related to religion (Hawdon, Ryan, & Lucht, 2014). In Finland, 67% of 15-18 year olds reported exposure to hateful content (Oksanen, Hawdon, Holkeri, Näsi, & Räsänen, 2014).

In addition to these types of risky content, online communities also exist that promote negative behaviours such as extreme diets and eating disorders as well as suicide or self-harm. These websites tend to frame these behaviours as a lifestyle and as part of one's identity, thereby validating self-injury, bulimia and anorexia (Boyd, Ryan, & Leavitt, 2011). For example, Pro-Ana (pro-anorexia) and Pro-Mia (pro-bulimia) communities have discussion forums and groups that collectively promote eating disorders and offer support and motivation ('thinspiration' and 'bonespiration') to its members through poetry and pictures and also encourage the posting of photographs, weigh-ins and fasting ideas (Boyd et al., 2011). This content has become more accessible recently as it no longer relies solely on websites which can be monitored,

but is also available on platforms such as Snapchat, Tumblr and Instagram (Custers, 2015). Research focusing on females found that viewing of such content resulted in more negative affect and lower self-esteem (Bardone-Cone & Cass, 2007) as well as poorer body image and lower empowerment (Latzer, Spivak-Lavi, & Katz, 2015).

In terms of suicide and self-harm, 23% of young adults reportedly searched for this type of content online, which included both content that promoted the behaviours as well as support seeking (Mars et al., 2015). In a younger sample aged 10-17 years, 1% had sought out information that supports suicide and self-harm behaviours (Mitchell, Wells, Priebe, & Ybarra, 2014). A review of 16 studies found that exposure to this type of content had both positive and negative effects (Daine et al., 2013), serving to provide social support as well as to normalise and encourage self-injurious behaviours (Whitlock, Powers, & Eckenrode, 2006). Across studies, searching for content about suicide or self-harm was strongly linked to self-harm behaviours, suicidal thoughts and suicidal plans (Mars et al., 2015; Mitchell et al., 2014). In general, exposure to such websites among children and adolescents is likely to have a considerable psychological impact (Boyd et al., 2011).

2.2.3.2 Contact Risks

Contact risks involve children interacting with and forming relationships with online strangers. A study in the US found that 42% of 12-14 year olds had spoken to at least one online stranger in the year preceding the study (McQuade & Sampat, 2008) and 11% of 10-17 year olds reported establishing close relationships on the internet (Walsh, Wolak, & Mitchell, 2013). In the UK, 11% of adolescents stated that they met new acquaintances online (Livingstone & Bovill, 2001). While contact with individuals can be a positive experience for many, various risks are associated with this behaviour not least of which include children and adolescents meeting online strangers in person. Several studies show the proportion of encounters that led to offline meetings. For example, in the US, one in ten grade 7-9 children had asked someone online to meet them in person and a similar proportion had accepted an online invitation to meet someone in person (Livingstone, Kirwil, et al., 2013;

McQuade & Sampat, 2008). Moreover, 16% of 12-17 year olds in Singapore (Liau, Khoo, & Ang, 2005) and 17% of adolescents in the Netherlands (Van den Heuvel, van den Eijnden, van Rooij, & van de Mheen, 2012) had real life encounters with online strangers. In SA, a national study found that 12.1% of adolescents had met an online stranger in person (Burton & Leoschut, 2012). Another study found that 40% of adolescents had met an online stranger, of whom 30% reported that the person was not who they thought it was going to be (De Lange & Von Solms, 2011). Evidence also suggests that primary school children (grades 4-6) are just as likely to meet strangers in person (7.5%), with one in five (20.9%) going to the meeting alone (Valcke et al., 2007). This places children in danger of falling prey to sexual predators because trusting relationships can be forged with inexperienced adolescent victims (Galpin & Flowerday, 2011). Although many of these meeting are with same-aged peers and include friends of friends, adolescents are also meeting strangers online who are not connected to any of their offline friends. According to Livingstone et al. (2012), 9% of 11-16 year olds have met face-to-face with someone they talked to online, of which 5% were friends of friends and 4% were strangers.

While ICTs provide means for adolescents to establish unique and private selves in online spaces, the anonymity afforded by the internet provides opportunities for adults to exploit the trust of children and falsely identify themselves as under-age (Denissen et al., 2010). Online solicitation is defined as an online communication where one individual (adult or minor) on the internet attempts to either talk about sex with a minor or asks a minor to do something sexual (Finkelhor, Mitchell, & Wolak, 2000). Thus, solicitation encompasses a range of sexualised online contact, ranging from flirting between minors (McQuade & Sampat, 2008) to solicitation by adults (cybergrooming) in an attempt to coerce the minor to send sexually suggestive images or videos, or to lead them to offline meetings (Berson, 2003; Wachs, Wolf, & Pan, 2012). Cybergrooming is distinguished from a single occurrence of sexual solicitation, in that it involves establishing a trust-based relationship with a minor (usually by an adult) by exploiting the child's need for attention, affection or natural curiosity in sexual topics during puberty (Wachs et al., 2012). Therefore, cybergroomers often use programs or engage in activities that are primarily targeted at adolescents in order to come into contact with their victims (Wachs et al., 2012).

According to Wachs et al. (2012), 21.4% of participants in grades 5-10 in a German study reported that they had contact with a cybergroomer in the past year. Interestingly, that study identified three risk factors for cybergrooming, namely, being female, willingness to meet strangers in real life, and being cyberbullied (Wachs et al., 2012). The fact that cyberbully victims were vulnerable to cybergrooming may be as a result of these vulnerable adolescents being more susceptible to online trust relationships and attention from online strangers as a result of their negative online encounters. While the study showed an association between cyberbullying and cybergrooming, causal inferences cannot be concluded from the data. However, this is an indication that cyberbullying may be linked to online risks more broadly.

2.2.3.3 Conduct Risks

Conduct risks refer to any behaviours on the part of the individual which may result in negative consequences. This includes giving out personal information online or sharing images or other media with known individuals or online strangers. Literature indicates that a high proportion of adolescents are giving out personal information about themselves online or sharing images of themselves (e.g. Kite, Gable, & Filippelli, 2010). While not a risk factor of its own accord (since many websites involve giving out some personal information), the posting of personal or identifying information online can be associated with a broader habit of risk taking behaviour that can put adolescents at risk for online solicitation or cyberstalking. Among 9-16 year olds from 25 European countries, 43% claimed to keep their social networking profiles private so that only their friends could see them, while 28% had profiles that were part private but friends of friends could view their profiles (Livingstone, Ólafsson, & Staksrud, 2013). This is a concern because some children add individuals they do not know as contacts on their social networking profiles (often due to social status associated with having a certain number of contacts or followers), thus, they may be at risk even within their own online circle. Recent findings by Kite, Gable and Filippelli (2013), found that 30% of middle school and 26% of high school children admitted that the contact information they currently provided on their social media accounts would make it easy for an internet predator to find them, while 28% of middle school children and 19% of high school children in the study stated that an

internet predator would be able to contact them based on information their friends have posted about them online. Research suggests that males tend to share more personal information compared to females, but females tend to share more images online than males (Ybarra, Alexander, & Mitchell, 2005).

Sexting, the act of sending or receiving sexually themed images or comments, has been a particular focus in recent international research and also forms part of conduct risks. A study among young adults in the US found that 44% engaged in sexting behaviours, which was associated with higher sexual risk behaviours (Benotsch, Snipes, Martin, & Bull, 2013). A retrospective study among US university students also found that a third had sent sexting images or comments of themselves during adolescence (Martinez-Prather & Vandiver, 2014). A Pew Internet study in the US found that 15% of 12-17 year olds had received sexting material (Lenhart, 2007), while a more recent study found that 17% of 12-18 year olds had engaged in sexting (Dake, Price, Maziarz, & Ward, 2012). Another US study found that 12.9% of 11-18 year olds had received sexting material, while 7.7% had sent sexting material (Hinduja & Patchin, 2010a). As noted from the studies mentioned thus far, most research on sexting to date was conducted with a US sample and it is thus questionable how these findings relate to other countries. Research on sexting across a number of European countries among those aged 11-16 years found that 15% had sent or received sexual messages online (Livingstone, Kirwil, et al., 2013). Further research is needed to determine the prevalence rates of sexting and the nature of the sexting acts.

Although most sexting experiences were voluntary and reflect sexual identity exploration in adolescent development (Buckingham & Bragg, 2004), it can be problematic due to its potential to be a cyberbullying risk, where private images or videos are distributed to a wider audience than was initially intended as is the case with ‘revenge porn’ incidents frequently portrayed in the media (e.g. Sherlock, 2016: ‘Revenge pornography victims as young as 11, investigation finds’). When examining sexting it is thus important to understand the distinction between criminal or abusive forms of sexting and experimental sexting, since not all forms of sexting are

problematic (Livingstone et al., 2012). Although only a minority of adolescents were upset by sexting, only 4 in 10 told someone when they were upset (Livingstone et al., 2012). Thus, there is potential for serious effects related to these behaviours when they are undetected and individuals suffer in silence.

2.2.3.4 Demographics and Online Risks

There is little research into this area at present, making it difficult to draw firm conclusions with regard to demographics and online risks. However, research shows that older adolescents are more likely to have experienced an online risk compared to younger adolescents or children (Duerager & Livingstone, 2012). For example, older adolescents were more likely to engage in sexting (Klettke, Hallford, & Mellor, 2014) and to talk to new contacts online and meet them face-to-face (Livingstone et al., 2012). Older adolescents are argued to be more vulnerable to online risks as they tend to engage in more complex and interactive internet use than the less experienced younger age groups (Livingstone & Helsper, 2008).

Literature also provides evidence for a link between the amount of time spent online and the likelihood of engaging in risky behaviours: higher ICT use is linked to higher probability of being bothered or upset by something on the internet (McCarty et al., 2011; Smahel et al., 2012), which may account for more online risks among older adolescents since they are more likely to have higher access to ICTs than younger adolescents. These age trends were also found for exposure to pornography in some studies, with higher exposure among older adolescents (Livingstone & Bober, 2006; Ybarra & Mitchell, 2005). This was also found for sexting, where older adolescents were more likely to have engaged in sexting compared to younger adolescents (Dake et al., 2012; Hinduja & Patchin, 2010a; Klettke et al., 2014).

In terms of gender, while males and females are equally likely to come into contact with distressing material online, males are more likely to have come across pornographic or violent content than females (Fleming, Greentree, Cocotti-Muller,

Elias, & Morrison, 2006). Further research on exposure to online pornography has shown that males accessed this content significantly more than females (Böhm, Franz, Dekker, & Matthiesen, 2015; Chen et al., 2013; Flood, 2009; González-Ortega & Orgaz-Baz, 2013; Sabina et al., 2008; Ybarra & Mitchell, 2005). As mentioned, males tended to share more personal information about themselves online compared to females, but females tended to share more images online (Ybarra et al., 2005). Findings relating to sexting and gender are inconclusive, with some indicating that females are more likely to send sexts (Mitchell, Finkelhor, Jones, & Wolak, 2012) while males are more likely to receive them (Hinduja & Patchin, 2010a). Other studies found no gender differences in relation to sexting (Lenhart, 2009). In terms of contact risks, females were found to be more likely to form close online relationships with others as was previously mentioned (Wolak et al., 2002). Although research to date has demonstrated some important gender and age findings, further research is needed to examine these differences across adolescence and in different contexts.

2.3. CYBERBULLYING

Apart from the risks that exist in terms of the nature of ICTs which include exposure to various content and individuals who may hide their identities, children also face risks from online peers by means of cyberbullying. Despite its ability to technically be categorised as an online risk and, more specifically a conduct related risk, cyberbullying is dealt with in a separate section (and as a separate variable in the current study) due to its complexity in that one online user is able to be a victim, perpetrator and a witness at different times when interacting online. The following section on cyberbullying addresses this complex issue.

2.3.1 Traditional vs. Cyberbullying: Definitions and Differences

Dan Olweus, one of the leading experts in bullying and bullying prevention research, defined traditional face-to-face bullying[2] as repeated exposure to negative actions by

[2] The terms ‘traditional bullying’, ‘face-to-face bullying’ and ‘school bullying’ are used across different studies but all refer to bullying that occurs in offline environments. Therefore, these terms are used interchangeably in the following sections.

one or more people over a period of time, creating an ongoing pattern of harassment and abuse (Olweus, 1993). He defined negative actions as purposeful attempts to injure or inflict discomfort on another person either through words, physical contact, gestures or through exclusion from a group (Olweus, 1993, 1994). Further distinctions were made in the types of bullying that can occur, namely, *direct* or *overt physical aggression* which involves physical attacks, (ii) *direct verbal aggression* which refers to name-calling, shouting and accusing as well as the more subtle (iii) *indirect* or *relational* bullying which refers to psychological attacks such as social isolation through intentional exclusion from an in-group or through manipulation of relationships and attempts to undermine social standing or self-esteem of the victim, for example, gossiping, humiliation and spreading of rumours (Björkqvist, Lagerspetz, & Kaukiainen, 1992; Crothers & Levinson, 2004; Dooley, Pyżalski, & Cross, 2009; Olweus, 1993; Raskauskas & Stoltz, 2007).

Cyberbullying is defined in much the same way as traditional bullying but naturally does not constitute bullying of a physical nature. It can be defined as an "aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time, against a victim who cannot easily defend him or herself" (Smith et al., 2008, p. 376; Smith, 2015). Cyberbullying can be categorised in various ways, for example, according to the covert or overt nature of the acts, the electronic media used to bully another person, or according to specific behaviours (Menesini et al., 2012). An example of this is the classification system utilised by Willard (2007), which is based on the nature of the bullying acts. This classification system includes *written-verbal* acts, *visual* acts, *impersonation* and *exclusion* (Willard, 2007). As the name suggests, *written-verbal* acts include all means of bullying that are written or verbal such as those occurring through phone calls, text messages and emails, while *visual* acts include bullying behaviours perpetrated through, for example, posting compromising images of someone for a larger audience to see (Willard, 2007). Revealing personal information about someone or posting on their behalf by using their personal account (e.g. 'fraping') are categorised as *impersonation*, and *exclusion* refers to deliberately excluding another person from joining a particular in-group online, thereby making them feel like an outcast (Menesini et al., 2012; Willard, 2007). While definitions of cyberbullying are still debated in much of the recent

literature, two key studies in this area have outlined examples of online behaviours which constitute cyberbullying and which help to operationalise the definition. Firstly, according to Patchin and Hinduja (2006), the following all encompass aspects of cyberbullying behaviour: (1) bothering someone online; (2) teasing in a mean way; (3) calling someone hurtful names; (4) intentionally leaving someone out of something; (5) threatening someone; and (6) saying unwanted sexually-related things to someone. This can occur via text messages, pictures or video clips via mobile phone cameras, phone calls, e-mails, chat rooms, instant messages, websites and blogs, social networking sites or internet gaming. Similarly, Willard (2007) identified seven types of direct and indirect cyberbullying behaviours, including:

1. *Flaming* involves the sending of angry, rude and confrontational messages often containing explicit and vulgar language. It often occurs in public online settings such as chat rooms and discussion groups. These are usually cyber fights and can result in a 'flame war'.

2. *Harassment* involves repeatedly sending cruel, insulting or offensive messages via any electronic media. The persistence of these messages cause alarm, annoyance and substantial emotional distress to the target.

3. *Denigration* is the act of spreading rumours, posting false information or making derogatory statements about others online in an attempt to damage the person's reputation or friendships. This also includes posting or sending digitally altered images that portray the person in a sexual or harmful way.

4. *Outing and trickery* is the dissemination of private information or talking someone into divulging personal information which is then publicised in an attempt to embarrass the individual. This is a tactic often used by former friends who share secrets or embarrassing photos that were provided in confidence.

5. *Impersonation, Masquerading or Identity Theft* occur when an individual pretends to be someone else and posts material or sends offensive messages to others in order to damage the person's reputation. The perpetrator often hacks

into the target's account and makes statements as if it were being voiced by the target.

6. *Exclusion* is the act of intentionally excluding someone from an online group.

7. *Cyber stalking or cyber threats* involve creating fear by repeatedly sending offensive messages and threats to harm the target or others. This type of cyber aggression is most often associated with emotional distress.

Cyberbullying is a growing area of research attempting to draw attention to and bring about more understanding of the issue. However, due to a lack of theoretical underpinnings or a clear consensus on the definition of cyberbullying at present, most researchers rely on the existing framework associated with traditional bullying to understand its characteristics. Several studies have found links between traditional bullying and cyberbullying indicating that cyberbullying may be an extension of traditional bullying (e.g. Juvonen & Gross, 2008; Kowalski, Giummetti, Schroeder & Lattanner, 2014; Kowalski & Limber, 2007; Raskauskas & Stoltz, 2007; Schneider, O'Donnell, Stueve & Coulter, 2012, Slonje & Smith, 2008). More specifically, traditional bullying is claimed to lead to cyberbullying with cyberbullies making up a subgroup of traditional bullies (Raskauskas & Stoltz, 2007). Similarly, victims of traditional bullying were found to be at higher risk of cyberbullying (Juvonen & Gross, 2008). As such, the online context is often seen as a different means through which victimisation can occur rather than a distinctly separate phenomenon (Jose, Kljakovic, Scheib, & Notter, 2012; Juvonen & Gross, 2008). However, some argue that these links have not yet been substantiated (Erdur-Baker, 2010). Erdur-Baker (2010) found that cyberbullying and traditional bullying were related for males but not females. Despite some overlap, traditional bullying and cyberbullying encompass some unique features (e.g. anonymity) (Wang, Iannotti, & Nansel, 2009; Ybarra, Mitchell, Wolak, & Finkelhor, 2006). These are discussed later in this section.

Olweus proposed three criteria for bullying, namely, (i) intentionality, (ii) repetition and (iii) imbalance of power between the victim and perpetrator (Olweus, 1993).

These three criteria clearly encompass the definition of cyberbullying as outlined by Smith et al. (2008). It is these criteria that are argued to differentiate bullying acts as a subcategory within aggression more broadly (Olweus, 1999). Menesini et al. (2012) explored these criteria for use in cyberbullying research and found *imbalance of power* followed by *intentionality* to be key factors in the definition of cyberbullying. Other researchers suggest that cyberbullying refers to any discomfort or harm that is *intentionally* and *repeatedly* inflicted on a specific person or group (Grigg, 2010; Robinson, 2012; Williams & Guerra, 2007). However, there are a number of important differences between traditional bullying and cyberbullying. Intentionality can be difficult to ascertain in some cases due to the lack of verbal and physical cues in online communication, but acts still have a negative impact on the victim (Menesini et al., 2012). As a result, Grigg (2010) argues that the criterion should be based on the victim's interpretration and the impact the act has on them. With regard to repetition, Menesini et al. (2012) point out that in a virtual environment one act of aggression can lead to repeated victimisation without the continued contribution by the perpetrator. For example, receiving a hurtful comment on a social networking site can be reread and shared several times which results in repeated victimisation. Similarly, uploading an embarrassing picture on a website can result in continued and widespread ridicule for the victim even though the perpetrator committed only one act of aggression (Dooley et al., 2009). A single post can thus also be considered cyberbullying if there is evidence of distribution (Patchin & Hinduja, 2015). As such, repetition as a criterion in its conventional sense takes on a different meaning in cyberspace and it is argued to be less important and reliable in this context (Menesini et al., 2012; Robinson, 2012). This is especially the case since cyberbullying acts vary in degree. For example, receiving a threatening text message is far more personal than receiving a threatening message in an online chat room. Acts of cyberbullying may also be private (such as text messages), semi-public (such as posting harassing messages on an email list) or public (such as creating a website devoted to mocking an individual). Therefore, it is argued that some acts may not need to be repeated in order to inflict harm to the victim, particularly with regard to acts that have a large potential audience (Dooley et al., 2009).

The criterion of imbalance of power between the perpetrator and the victim also differs in the virtual context. In the cyber world, the bully may not be physically stronger, older or more popular socially than their victim, as is often the case in face-to-face bullying. Instead, the imbalance is argued to be "based on the micro process of action and reaction" (Menesini et al., 2012, p. 5). Power imbalances play out differently online, which is evident in that victims of cyberbullying are also often perpetrators (see section 2.3.2) (Bauman, Toomey, & Walker, 2013). It is argued that a victim's inability to defend themselves creates a power imbalance (Menesini et al., 2012). In cyberbullying, this can also be conceptualised in terms of the victim not being able to escape the bullying as it can occur at any time of day or night, since it is not dependent on a physical environment for its manifestation like traditional bullying. Therefore, in this sense, the victim's inability to have any control over the acts of bullying contributes to the imbalance of power and feelings of powerlessness (Dooley et al., 2009).

In addition to these three criteria, there are unique features in cyberbullying which impact on feelings of powerlessness on the victim. Firstly, cyberbullying is particularly troubling because the perpetrator is able to remain anonymous. This implies that the fear of being discovered, which normally acts as a behavioural control, is absent and the perpetrator may act in harsher ways which they would not otherwise do in a face-to-face interaction (Bauman, 2007). Anonymity can increase insecurity and fear because the victim does not know who the attack is coming from (Dooley et al., 2009; Nocentini et al., 2010). At the same time, a perpetrator who is familiar to the victim affects trust and can hurt the victim more. Thus, anonymity (or familiarity) of the perpetrator plays an important role on the impact associated with the cyberbullying act. In addition, relating back to the interplay of power in bullying acts, the potential for anonymity in cyberbullying means that the bully does not necessarily need to be more powerful than the victim (Dooley et al., 2009; Fauman, 2008).

Secondly, online disinhibition, a popular concept in the literature, describes the phenomenon of individuals behaving in ways online they may not normally do in real

life, with many adolescents admitting having typed things when they were online that they would not have said aloud (Kite, Gable, & Filippelli, 2013; Suler, 2004). Thirdly, an absence of social cues such as emotional responses on the part of the victim are not as present in online interactions, making an empathic reaction by the perpetrator unlikely since they are unable to see the harm that has been caused (Kowalski & Limber, 2007). It is argued that communication which lacks these nonverbal cues can produce behaviour that is self-oriented, with a lack of inhibition and concern for the feelings and opinions of others (Mesch & Talmud, 2010). Finally, images and comments about the victim can also be distributed to a wide audience very quickly in online spaces which increases the distress caused to the victim (Kowalski & Limber, 2007). Having hurtful comments or pictures posted about oneself which a large number of acquaintances or strangers witness, even beyond the school or community, amplifies the negative consequences for the victim considerably. The large audience can also act as a motivation for perpetrators and they may also receive positive feedback from witnesses (Mesch & Talmud, 2010).

The debates surrounding the definition of cyberbullying and the subsequent impact on measurement may account for the variations in prevalence rates across studies (discussed in section 2.3.2). Others, due to the debates around the definitional criteria, examine cyberaggression more broadly. According to Grigg (2010), cyberaggression refers to "…intentional harm delivered by the use of electronic means to a person or a group of people irrespective of their age, who perceive(s) such acts as offensive, derogatory, harmful, or unwanted" (p. 152). Considering the difficulties and debates relating to definitional criteria for cyberbullying, cyberaggression as a separate term encompassing negative online experiences more broadly is also important and useful since criteria for cyberbullying may ignore other potentially serious online experiences (Grigg, 2010). In addition, since researchers vary in the importance placed on various criteria, this can result in researchers exploring different phenomena using the same label of 'cyberbullying'.

Despite the debates surrounding the definition of cyberbullying, Patchin and Hinduja (2015) purport that the definition has little bearing for adolescents who are experiencing these behaviours and the adults (including parents and teachers) charged

with addressing them. For researchers, however, this poses a problem due to the difficulty in making comparisons across different studies and across contexts, which ultimately leads to confusion for stakeholders aiming to address this issue (Patchin & Hinduja, 2015). Due to the links established between traditional bullying and cyberbullying in previous research, the following sections focus on the prevalence, impact as well as risk and protective factors of cyberbullying but also highlight important research in traditional bullying.

2.3.2 Prevalence of Cyberbullying

Some research has suggested that cyberbullying appears to be on the rise. For example, between 2000 and 2005 the number of youth who admitted to using the internet to make rude or nasty comments to other people doubled from 14% to 28%, and the number who used the internet to harass or embarrass someone online increased from 1% to 9% (Wolak, Mitchell, & Finkelhor, 2006). Although it is unclear whether the issue is in fact on the rise or whether individuals are more aware of the issue as more attention is being drawn to it (particularly the impact of popular media in shaping perceptions), it is clear that cyberaggression and cyberbullying is a global phenomenon. A study conducted in six European countries indicated that 21.4% of 14-17 year olds had been cyberbullied in the past year (Tsitsika et al., 2015). In the Netherlands, 13.8% of 10-14 year olds had experienced cyberbullying and 7.7% had cyberbullied someone in the past year (Dehue, Bolman, Vollink, & Pouwelse, 2012). In a large-scale study in the US, 18% of middle-school children had experienced cyberbullying and 11% had cyberbullied someone in the past 2 months (Kowalski & Limber, 2007), while 15.8% of US adolescents in grades 9-12 experienced cyberbullying and 25.9% experienced traditional bullying in the past 12 months (Schneider et al., 2012). In Canada, 23.8% of 10-17 year olds had been cyberbullied and 8% had perpetrated cyberbullying in the past 3 months (Mishna, Khoury-Kassabri, Gadalla, & Daciuk, 2012).

Research in the UK showed that a third of 9-19 year olds had received unwanted sexual (31%) or nasty (33%) comments via email, chat, instant messaging or text

messaging (Livingstone & Bober, 2006). More recently but with similar prevalence rates, 35% of 12-13 year olds and 40% of 14-15 year olds in England had been cyberbullied (Tarapdar, Kellett, & People, 2013). Figures are also high in SA, with 46% of young people between 12-24 years reporting that they experienced some form of cyberaggression (Burton & Mutongwizo, 2009). A national study on school violence in SA, which included questions on cyberbullying, found that 20.9% of adolescents had been victimised (Burton & Leoschut, 2012). In the KwaZulu Natal province in SA, 28.2% of adolescents in grades 8-10 (ages 13-15) were victims and 16% were perpetrators of cyberbullying (Pillay, 2012). Although findings vary between studies, meta-analyses found that most studies indicate a prevalence rate between 20%-40% (Tokunaga, 2010). Another meta-analysis of 80 studies indicated a prevalence rate of 15% for cyberbullying compared to 35% for traditional bullying (Modecki et al., 2014). As mentioned, one of the key factors that contribute to the variations in prevalence rates is the lack of consensus surrounding definitions of cyberbullying. In addition, studies also apply different time frames to examine online experiences (e.g. ever, in the past year, in the past month) (Aboujaoude, Savage, Starcevic, & Salame, 2015; Brochado, Soares & Fraga, 2016). Thus, interpretations and comparisons must be done with caution. A further summary table of prevalence rates of a number of studies are shown in Appendix A.

Literature on cyberbullying also indicates that there is a link between being a victim and perpetrator (Bauman et al., 2013; Kowalski & Limber, 2007, Mishna et al., 2012; Modecki et al., 2014), which was also found in traditional bullying research (Chapell, Hasselman, Kitchin, Lomon, & others, 2006). For example, in SA seven out of ten (69.7%) of those who admitted to cyberbullying someone had themselves been bullied (Burton & Leoschut, 2012; Burton & Mutongwizo, 2009). Another study in SA found that 44.2% of adolescents were both a victim and perpetrator of cyberbullying (Pillay, 2012). Further international research has shown that three-quarters (75%) of those who victimised others online were also targets of cyberbullying themselves (Patchin & Hinduja, 2006). Apart from victimisation and perpetration, nearly half (46%) of adolescents in the US witnessed cyberbullying in online spaces (Patchin & Hinduja, 2006). This indicates that young people are

exposed to high levels of aggression online either as victims, perpetrators or witnesses, or –far more likely- a combination of these throughout their daily ICT use.

In terms of demographics, well-established research on traditional bullying has found that males are generally more prone to direct physical forms of bullying while females are more prone to indirect relational forms of bullying (Olweus, 1993, 2003; Wang et al., 2009), which points to different gender socialisation processes. However, some studies have also found no gender differences in traditional bullying (Perren, Dooley, Shaw, & Cross, 2010; Solberg, Olweus, & Endresen, 2007). Since cyberbullying is more closely associated with relational and verbal forms of bullying, it is often expected that females would be more likely to be perpetrators and victims of cyberbullying. However, literature shows contradicting results. Some research indicates that females are more at risk of cyberbullying victimisation (Beckman, Hagquist, & Hellström, 2013; Ortega, Elipe, Mora-Merchán, Calmaestra, & Vega, 2009), while others found that females are more at risk of both victimisation and perpetration compared to males (Barlett & Coyne, 2014). In contrast, others have found that males are more likely to be both perpetrators and victims (Erdur-Baker, 2010), that males are more likely to be perpetrators (Fanti, Demetriou, & Hawa, 2012) or more likely to be victims (Popović-Ćitić, Djurić, & Cvetković, 2011; Šincek, 2014). Others have found varying combinations, such as females being more likely to be victims and males more likely to be perpetrators (Heiman & Olenik-Shemesh, 2015; Huang & Chou, 2010). A number of other studies also reported no significant gender differences (Katzer, Fetchenhauer, & Belschak, 2009; Tokunaga, 2010). This points to the varying gender findings across studies and, therefore, firm conclusions regarding prevalence and gender have not been drawn.

The same conflicting results are found in relation to age. Although the majority of studies did not find a relationship between age and cyberbullying victimisation (Juvonen & Gross, 2008; Katzer et al., 2009; Ortega et al., 2009; Patchin & Hinduja, 2006; Smith et al., 2008), Ortega et al. (2009) found that being a victim of traditional bullying decreased across adolescence from 12 to 17 years but cyberbullying victimisation peaked at middle adolescence. Similarly, others have also noted a

curvilinear relationship in cyberbullying with a peak between 13-15 years (e.g. Tokunaga, 2010; Wolak et al., 2006). A US study noted that cyberbullying decreased from 17.2% to 13.4% while traditional bullying decreased from 32.5% to 17.8% between grades 9 and 12 (Schneider et al., 2012). A meta-analysis of 122 effect size estimates also found that age moderated the gender differences (Barlett & Coyne, 2014). While males were slightly more likely to cyberbully than females, females were more likely to be cyberbullies at early and middle adolescence and males were more likely to be cyberbullies at late adolescence (Barlett & Coyne, 2014). This is in line with research on traditional bullying which found that male involvement in bullying increased during high school, while female involvement levelled out or declined during high school (Griezel, Finger, Bodkin-Andrews, Craven, & Yeung, 2012). One of the arguments for the differences in gender and age in relation to cyberbullying is that cyberbullying does not become common until individuals become technologically sophisticated enough which occurs at older ages (Barlett & Coyne, 2014). Moreover, if viewed as a form of relational aggression, females are more likely to engage in this behaviour at earlier ages as they tend to mature both physically and socially faster than their male counterparts (Barlett & Coyne, 2014).

Although research comparing ethnicity and cyberbullying is fairly limited, findings indicate some differences in cyberbullying among different ethnic groups. A study conducted in the US showed that the prevalence rates for cyberbullying for White, African American and Hispanic students were 38%, 33% and 23% respectively, and 28%, 18% and 13% for having cyberbullied others (Kupczynski, Mundy & Green, 2013). The differences between White and Hispanic students was significant, although the study offers no explanations for these possible differences. A large-scale US study conducted among high school students in grades 9-12 indicated that White students had higher rates of both traditional bullying and cyberbullying compared to African American and Hispanic students (Waasdorp, & Bradshaw, 2015). A study among US college students found that Asian Americans reported higher rates of cyberbullying than students in other population groups (Zalaquett & Chatters, 2014), which was also found by Goebert et al. (2011) who noted that cyberbullying appeared to be more prevalent in multiethnic populations. Others, however, observed no ethnic

differences in cyberbullying or traditional bullying experiences (Schneider et al., 2012; Smith, Thompson & Bhatti, 2012).

There is also evidence to suggest that there are cultural differences in cyberbullying experiences. For example, no gender differences were found in Australia but large gender differences existed in Asia (Barlett & Coyne, 2014), which was also previously found in traditional bullying (Lansford et al., 2012). This finding may be highly relevant for the two contexts in the current study. It is argued that there may be different levels of sensitivity to cyberbullying in different cultures due to differing rates of educational and media campaigns and policies on the issue, or the nature of cyberbullying acts may differ due to differences in the school social climate, relationships established at school, or other social factors (Ortega et al., 2012).

Economic resources may also play a role in predicting cyberbullying, since they lead to ICTs being more readily accessible in homes. Thus, homes with fewer economic resources are less likely to have internet access or upgraded mobile technology which leads to lower levels of cyberbullying (Syts, 2004, as cited in Topçu, Erdur-Baker, & Capa-Aydin, 2008). Despite this, the growing affordability of smartphones and data bundles in SA has resulted in more and more youth having access to the internet (Popovac & Leoschut, 2012) and youth in general being more and more connected. As such, apart from access to ICTs, cyberbullying may be more likely to be related to frequency of ICT use which may be higher in more developed countries. Since research in this area is limited, comparing developing and developed countries is a gap in current research and may pinpoint important differences related to ICT use and cyberbullying among adolescents. Furthermore, the conflicting findings for demographics and cyberbullying bring to attention the differences in definitions, measures and time frames across studies, making comparisons difficult. Thus, more research is warranted in this area. The section that follows discusses some of the effects of cyberbullying and traditional bullying on victims.

2.3.3 Impact of Cyberbullying

The severity of cyberbullying is often highlighted in high-profile media cases, and more and more importance is being placed on the behaviour and experiences of children in online media due to the severe repercussions these experiences can have. Research on the effects of cyberbullying show that they are similar to that of traditional bullying, which include psychological, emotional and behavioural problems. These effects have been found to be similar both for victims and perpetrators of cyberbullying (Beckman, Hagquist, & Hellström, 2012; Gámez-Guadix, Orue, Smith, & Calvete, 2013; Kowalski & Limber, 2013), which has also been established in research on traditional bullying (Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Skrzypiec, Slee, Askell-Williams, & Lawson, 2012). In fact, those who are both victims and perpetrators of cyberbullying displayed the most serious psychiatric and psychosomatic problems (Sourander et al., 2010). More generally, online peer victimistion is associated with general psychological distress and poor psychosocial adjustment (Kochenderfer-Ladd & Skinner, 2002), and those who had been cyberbullied showed lower overall life satisfaction (Pillay, 2012). Cyberbullying and traditional bullying have also been linked to suicide attempts and suicidal ideation (Kim & Leventhal, 2008; Litwiller & Brausch, 2013; Van Geel, Vedder, & Tanilon, 2014), low self-esteem (Kim & Leventhal, 2008; Patchin & Hinduja, 2010a), substance abuse and delinquency (Hinduja & Patchin, 2007) and online peer victimisation was linked to depression, anxiety and eating disorders (Dempsey, Sulkowski, Nichols, & Storch, 2009),

The link between depression and both traditional bullying and cyberbullying has been especially well-documented (Bowes, Joinson, Wolke, & Lewis, 2016; Kaltiala-Heino, Fröjd, & Marttunen, 2010; Perren et al., 2010; Wang, Nansel, & Iannotti, 2011). The causal link between depression and traditional bullying was found to be bidirectional (Kaltiala-Heino et al., 2010; Boyes et al., 2014) and this was also established in a longitudinal study on cyberbullying which indicated that victims of cyberbullying at Time 1 had increased depressive symptoms at Time 2, and depressive symptoms at Time 1 resulted in a higher likelihood of cyberbullying victimisation at Time 2 (Gámez-Guadix et al., 2013). It is argued that victimisation can lead to feelings of

isolation and sadness, and that more isolated individuals are likely to have lower social skills and lower self-esteem putting them at increased risk of victimisation (Gámez-Guadix et al., 2013; Kaltiala-Heino et al., 2010). According to Kaltiala-Heino et al. (2010), depressed individuals may also have distorted views of social interactions. Other research has found that, although traditional bullying victims perceive their experiences to be harsher, cyberbullying victims experienced more social difficulties, anxiety and depression (Campbell, Spears, Slee, Butler, & Kift, 2012). Others found that both traditional bullying and cyberbullying were associated with negative mental health outcomes, however, when controlling for the two types of bullying, traditional bullying remained a predictor for negative mental health outcomes while cyberbullying did not (Hase et al., 2015). The impact of cyberbullying in relation to traditional bullying was also found to be dependent on the medium which was used, with adolescents reporting that text messages and emails had less of an impact but that images and video clips had more of an impact than traditional bullying (Smith et al., 2008). For females especially, there was a strong link between cybervictimisation and depression, with depression also being linked to suicide attempts (Bauman et al., 2013) . Other research also found that females were more likely to state that they felt negative emotions as a result of cyberbullying and traditional bullying experiences (Ortega et al., 2009). It is argued that internalising negative experiences occurs more frequently among females, whereas males tend to externalise negative experiences (Rosenfield, 2000). This may account for more negative emotions reported by females.

Findings also show that the effects of cyberbullying can manifest in psychosomatic ways due to chronic stress, with cyberbullying victims experiencing headaches and recurrent abdominal pains just like victims of traditional bullying (Beckman et al., 2012; Gini & Pozzoli, 2013). Furthermore, emotional effects include frustration, fear, anger and feeling upset (Hinduja & Patchin, 2009; Juvonen & Gross, 2008). Cyberbullying has also been associated with school drop out and absenteeism, low school commitment and diminished concentration, lower academic performance as well as school violence (Bauman, 2007; Patchin & Hinduja, 2006). It has also been linked to not feeling safe at school more broadly (Sourander et al., 2010), indicating that the issue is a school safety concern.

Many children do not report incidents to parents or teachers (discussed further in section 4) and adults often only find out about situations once they have become very serious. Thus, cyberbullying can continue for extended periods, thereby aggravating its negative effects, as was found with traditional bullying (Aluede, Adeleke, Omoike, & Afen-Akpaida, 2008). The high prevalence rates and serious consequences associated with cyberbullying have led it to being characterised as a serious societal-level health concern (Tokunaga, 2010). This is a particularly pertinent issue in terms of adolescent well-being, development and safety as rates of cyberbullying are likely to continue to increase as technology evolves and as children gain more and more access to ICTs (Raskauskas & Stoltz, 2007). Thus, research into cyberbullying is important in order to better understand the complexity of this phenomenon and to identify the key issues to be addressed through intervention and prevention strategies. The following section discusses some of the main risk and protective factors in relation to cyberbullying.

2.3.4 Risk and Protective Factors of Cyberbullying

Cyberbullying has similar risk and protective factors as traditional bullying, but also encompasses some specific technologically induced risk factors (Casas, Del Rey, & Ortega-Ruiz, 2013). This includes aspects such as anonymity and reduced inhibition in making aggressive comments, as previously mentioned. Risk factors can also be related to exposure and the location of ICTs in the home. Findings show that computers located in more private areas of the home are associated with higher risk of victimisation (Byrne, Katz, Lee, Linz, & McIlrath, 2014; Eastin et al., 2006; Khurana et al., 2014) and more time spent using ICTs was linked to a higher probability of being bothered or upset by something on the internet (McCarty et al., 2011; Smahel et al., 2012). Online risk behaviours were also linked, with findings suggesting that a willingness to provide personal information about oneself online was a risk factor for cyberbullying (Patchin, 2006; Twyman, Saylor, Taylor, & Comeaux, 2010) as well as control of personal data where images or confidential information is available to a larger audience (Casas et al., 2013). The types of online activities individuals engage

in can also lead to greater risk of cyberbullying. Studies suggest that the use of technology for communication-focused activities such social networking, texting or instant messaging rather than using technology for information or entertainment purposes leads to greater risk of cyberbullying (Mesch & Talmud, 2010; Twyman et al., 2010). For example, participation in chat rooms enlarges young people's networks and exposes individuals to strangers who may be perpetrators of cyber aggression, but it is also often a space where intimacy develops through sharing of similar interests and individuals may be more likely to share personal information which can be used to perpetrate cyberbullying (Mesch & Talmud, 2010). Similarly, adding unknown contacts to social networking profiles increases the risk. In general, the more unknown individuals children invite into their social network, the greater the risk of meeting others who might become perpetrators.

Risk factors also include individual level factors such as feeling isolated, misunderstood, or depressed (Wells & Mitchell, 2008). Being a victim of traditional bullying is also a risk factor as bullying may continue into cyberspace (Kite et al., 2010; Mesch & Talmud, 2010) and, as mentioned, many studies have found a link between traditional forms of bullying and cyberbullying (e.g. Smith et al., 2008; Wang et al., 2009). When examining some of the motives for engaging in cyberbullying, which is primarily about inflicting harm and fear on others, further risk factors can be identified. While some studies showed that perpetrators simply cyberbullied others for fun (Dooley et al., 2009), others suggest that these incidents are mainly revenge attacks from traditional bullying experiences (Vandebosch & Van Cleemput, 2008). Cyberbullying can also occur in retaliation to a cyberbullying attack, where a victim lashes out on an innocent bystander and becomes the perpetrator of cyberbullying as a result of their personal experience of victimisation. This can occur for various reasons such as being unable to identify one's perpetrator due to the anonymity that ICTs can provide. This is referred to as cyber displaced aggression and may help to alleviate anger and frustration in victims (Wright & Li, 2012). This brings to attention the General Strain Theory (Agnew, 1992, 2009) which posits that when an individual experiences strain, such as being a victim of cyberbullying, they experience negative feelings that lead them to maladaptive coping strategies which can include behaviours such as becoming perpetrators of

cyberbullying against innocent victims (Agnew, 2009; Wright & Li, 2012). This indicates that being a victim of traditional bullying may be a risk factor in that the bullying may continue in online spaces but also suggests that experiences of cyberbullying victimisation may result in a higher likelihood of perpetrating cyberbullying (Jang, Song, & Kim, 2014; Patchin & Hinduja, 2010b). This is supported by Livingstone et al. (2012), where being a perpetrator was found to be the strongest predictor of being a victim of cyberbullying, followed by psychological difficulties.

Research also provides evidence for cyberbullies demonstrating less empathic responsiveness than individuals who do not cyberbully others (Steffgen, König, Pfetsch, & Melzer, 2011), which was also found in relation to traditional bullying (Jolliffe & Farrington, 2006; van Noorden, Haselager, Cillessen, & Bukowski, 2015). This implies that perpetrators of cyberbullying had a lower ability to understand and share the emotional state of others than individuals who were not perpetrators of cyberbullying. Similarly, a longitudinal study found that cyberbullies were more likely to display callous-unemotional personality traits (Fanti et al., 2012), while studies in relation to traditional bullying associated the Dark Triad of personality traits with bullying perpetration, most specifically psychopathy (Baughman, Dearing, Giammarco, & Vernon, 2012). Since there is an absence of emotional cues in online spaces, and perpetrators have been found to be less empathic, cyberbullying can very easily escalate into something very serious for the victim due the lack of understanding of the effects on the victim or the ability to relate to the victim. It also allows the perpetrator to cyberbully without feeling guilty and without having to employ disengagement strategies to distance themselves from the act of cyberbullying, since the victim is invisible (Perren & Gutzwiller-Helfenfinger, 2012). Typically, engaging in victim blaming is associated with less empathy towards the victim (Ang & Goh, 2010). This is supported by Casas, Del Rey and Ortega-Ruiz (2013) who argue that empathy has high predictive power on aggression. For this reason, these authors argue that steps taken to address empathy can reduce bullying (Ang & Goh, 2010; Casas, Del Rey & Ortega-Ruiz, 2013).

Literature also draws attention to the role of the parent-child relationship in cyberbullying victimisation and online risks. According to Wells and Mitchell (2008), individuals who had lower social support and guidance within their families were 2.5 times more likely to report aggressive online sexual solicitation, which was attributed to their compromised ability to resist or deter victimisation, thereby making them more vulnerable (Wells & Mitchell, 2008; Wolak et al., 2003). Conflict and alienation from parents as well as communication problems in the home were further linked in that regard, with adolescents with poorer overall parental attachments experiencing more online risks (Wells & Mitchell, 2008). Thus, Byrne et al. (2014), see the establishment of open communication between parents and their children as a key step in online safety, since the inability to communicate online behaviours to adults makes the underestimation of online risk behaviours more likely. Moreover, the parent-child relationship can serve an important role in increasing empathy and understanding towards online victims (Ang & Goh, 2010). As such the parent-child relationship is an important protective factor as it is associated with less involvement in cyberbullying (Fanti et al., 2012; Kowalski, Giumetti, Schroeder, & Lattanner, 2014). Furthermore, school social climate was found to be an important risk or protective factor (depending on its quality) on a number of outcomes such as academic achievement (Bear, Gaskins, Blank, & Chen, 2011). A positive school social climate and social support from friends was also negatively related to cyberbullying behaviour (Williams & Guerra, 2007). Thus, steps taken to improve the school social climate are important in reducing victimisation (Casas et al., 2013). These findings underscore the importance of the child's proximal environment and its ability to protect them from cybervictimisation when it is supportive. The following section highlights important findings on parental mediation, a key factor in children's online safety.

2.4. PARENTAL MEDIATION

2.4.1 The Generational Gap: Parental Awareness of Adolescent Online Behaviours

Perhaps as a result of generational differences in technological knowledge, research is indicating that parents do not have a realistic perception of their children's online

experiences and generally tend to underestimate their children's risky online behaviours. For example, while 46% of 9-19 year olds had given out personal information, only 5% of parents believe that their child has done so (Livingstone & Bober, 2006). More than half of young people in the same study (57%) had come into contact with pornography on the internet, while only 16% of parents believed this to be the case (Livingstone & Bober, 2006). Other research also indicated that 17% of parents underestimated their child's accidental exposure to sexual imagery and 12% of parents underestimated that their child had ever been approached by a stranger online (Byrne et al., 2014). Moreover, 20% of parents had underestimated that their child had been cyberbullied (Byrne et al., 2014). Thus, research suggests that adults are largely removed from children's online experiences and unaware of risk taking behaviours and experiences, leaving children to navigate online spaces with very little guidance to protect them.

According to Payne (2012), part of the problem in relation to online risks is that children are learning to use the internet through friends rather than adults and are thus unlikely to learn safe browsing habits. By learning to navigate the online world primarily from peers or by themselves, children are likely to be exposed to online risks. During adolescence, children look to influences outside of the family and begin to follow peer norms and it is argued that, perhaps, media itself serves somewhat of a peer function for adolescents (Strasburger, 2009). This points to the potential for the generational gap to be a significant contributor to a general lack of online safety. Another major reason for parents' lack of awareness is that children often do not confide in them about their online experiences, perhaps for fear that their online access will be reduced, especially since technology has become a very important social tool. This is reflected in the finding that just over half of middle school children (56%) and a quarter (26%) of high school children said that they would tell an adult if they were contacted by a stranger on instant message programs, leaving a considerable proportion of children who do not speak to adults about these experiences (Kite et al., 2013). Another factor at play here is that adolescents' desire for independence and the importance placed on privacy presents a challenge to parental monitoring because they tend to withold information (Sorbring & Lundin, 2012). In fact, the Norton Online Family Report (2010; as cited in Byrne, Katz, Lee,

Linz, & McIlrath, 2014) showed that many parents admitted having no knowledge about their child's internet behaviours and that children were aware of this fact. This suggests that children value their online privacy, which makes it difficult for parents to be fully aware of what is happening online. These challenges are discussed further in a later section.

Apart from underestimating online risks, studies on parental mediation of online spaces indicate low levels of supervision in general. More than half (54%) of adolescents in SA reported that they were not supervised when using the internet (De Lange & Von Solms, 2011) and one in ten (10%) parents in the UK admitted that they did not know what their child did on the internet (Livingstone & Bober, 2006). Studies have also found that perceptions relating to the presence of supervision were found to differ between children and parents (Gentile, Nathanson, Rasmussen, Reimer, & Walsh, 2012; Livingstone & Bober, 2006; Padilla-Walker, Coyne, Fraser, Dyer, & Yorgason, 2012). For example, two-thirds (66%) of high school students reported that parents provide no supervision of their internet activities compared to 7% of parents who admitted providing no supervision (McQuade & Sampat, 2008). Additionally, while 86% of parents of 9-19 year olds stated that they did not allow their children to give out personal information online, only 49% of children stated this to be the case (Livingstone & Bober, 2006). This is further evidence of the generational gap in knowledge of ICTs and the challenge this poses in mediating children's online activities. Key literature on the types of mediation strategies are discussed in the following section.

2.4.2 The Importance of Parental Mediation: Definitions and Strategies

Parental roles in mitigating the potentially negative influences or risks of media exposure on children's physical, psychological and emotional well-being has been examined since the 1980s, particularly in relation to the effects of television. More recently there has been a focus on parental mediation of other media such as video games and the internet. Understanding how families deal with media is important because parents who are aware of monitoring strategies and who are able to

implement these effectively can negate harmful media effects, can connect with their children over media, and can teach their child to become a critical media consumer (Padilla-Walker et al., 2012).

Parental mediation refers to "any strategy parents use to control, supervise, or interpret [media] content" for their children (Warren, 2001, p. 212). More specifically, it is described as actions parents employ to: (1) explain media content to children and guide them to interpret media content and its relationship to the real world, and (2) reduce access and prevent exposure to harmful or age-inappropriate content and to prevent content from interfering with educational or family activities (Mesch & Talmud, 2010). While researchers use different definitions and measures of parental mediation, the same three-dimensional framework is often used across different media (Gentile et al., 2012; Livingstone & Helsper, 2008; Mendoza, 2009). The three-dimensional framework outlined in the literature on media use among children generally identifies monitoring (or co-viewing), restrictive mediation and active mediation as key parental mediation strategies (Mendoza, 2009). *Monitoring* is the most common form of parental mediation and involves the simple act of sharing activities such as watching television, watching a video game or watching children go online with no discussion about content and use. *Restrictive mediation* includes the setting of rules for media consumption such as the amount of time spent online or the type of content that is permissible without necessarily discussing the meaning or effects of the content (Livingstone & Helsper, 2008; Mendoza, 2009). Finally, *active mediation* involves discussion about media content through sharing opinions and values about what is appropriate and inappropriate content and use of media while the child is engaging in the medium (Gentile et al., 2012; Livingstone & Helsper, 2008). A fourth type of parental mediation was added by researchers examining parental mediation on the internet, namely, technical mediation. This strategy is specific to the online context as it refers to strategies such as installing blocking or filtering programs that prevent children from accessing particular content or websites (Eastin et al., 2006).

Parental mediation can be viewed from a family system perspective (Bowen, 1966, 1974), where parental mediation strategies present opportunities for the family to reproduce its values in the face of external meaning systems through dialogue about media and sharing common media interests (Livingstone & Helsper, 2008). Thus, as a socialisation process, parental mediation is important not solely in terms of family value systems but also in terms of media literacy by shaping knowledge, attitudes and behaviours (Livingstone & Helsper, 2008; Youn, 2008). Active mediation is often argued to be most effective in this regard as it includes showing children how to check reliability of the information they read online, talking about how information is created, the relationship of information to the real world context as well as helping children understand media portrayals or messages (Mesch & Talmud, 2010; Padilla-Walker et al., 2012). It can thus be both positive/instructional and negative/critical (Livingstone & Helsper, 2008) and has been found to strengthen critical thinking abilities in children, protect children from risks associated with media, and is an important part of socialising children into responsible media consumers (Fujioka & Austin, 2002; Mendoza, 2009; Miyazaki, Stanaland, & Lwin, 2009; Youn, 2008). Active mediation is ideal because it is educational and equips children with the necessary skills to interpret content, risks and experiences and make safer decisions even when not accompanied by an adult.

Parents may make use of a single mediation technique or, as is more often the case, several techniques which may vary over time. The type of mediation that parents employ is strongly linked to their attitudes about the medium as well as their beliefs about its positive or negative effects on their children. For example, as can be expected, parents who hold the belief that television viewing may lead to negative effects have been found to be more likely to mediate their children's viewing (Warren, Gerke, & Kelly, 2002). Parental mediation is also dependent on the child's age and gender, with mediation being more common with girls (Khurana et al., 2014; Kowalski & Limber, 2007) and younger children, than for boys and adolescents (Mendoza, 2009; Mesch & Talmud, 2010; Mitchell et al., 2005). In terms of age, this is not surprising, as parents would be more likely to be concerned about their younger children's negative media exposure and to believe that younger children are in more need of protection and guidance (Gentile et al., 2012). In addition, parents may feel

more capable of monitoring younger children's media use compared to older children (Gentile et al., 2012). In relation to gender, parents may feel that females are more vulnerable and in need of protection due to differing socialisation processes.

Other factors that contribute to parental mediation include parental involvement, parenting style as well as cultural differences (Mendoza, 2009; Warren, 2001). For example, parenting styles were found to be linked to children's use of online media, with internet usage being highest in children whose parents adopt a permissive parenting style (characterised by high warmth and low control) and lowest when they adopt an authoritatian parenting style (characterised by either low or high warmth and high control) (Valcke, Bonte, De Wever, & Rots, 2010). The same study also found that parents' internet behaviours which relates to their internet experience, internet attitude and internet usage, as well as parental educational background significantly predicted children's internet usage in the home setting (Valcke et al., 2010). For example, higher parental education was linked to higher internet experience and use, impacting on the level of mediation in the home and was also linked to higher access to the internet by children (Valcke et al., 2010). Thus, parental characteristics influence parenting style and mediation. Parental education was also linked to playing of video games (Nikken & Jansz, 2006). More specifically, Gentile et al. (2012) found that parents with lower education and lower income were more likely to co-view television and video games with their children, while parents with a higher education and higher income were more likely to make use of restrictive mediation. Furthermore, parents' marital status was also linked to mediation strategies, with children in two-parent homes experiencing more mediation compared to children in single parent homes (Barkin et al., 2006). It is argued that this may be due to more adults in the home allowing for more opportunities to monitor behaviours. Due to its impact on adolescent online activities, parental mediation is an important variable to consider when examining adolescent online risk behaviours and cyberbullying.

2.4.3 Challenges in Parental Mediation on the Internet

A challenge for parental mediation is the overwhelming way in which media have saturated homes and families. According to Livingstone (2008), many children, particularly those in westernised countries, have access to televisions and computers in the privacy of their bedrooms which makes monitoring and supervision extremely difficult. While parents may apply similar parental mediation strategies across different media, the internet presents some unique challenges in need of consideration. Firstly, it is more difficult to make the internet a shared activity due to screen size, sitting position, reliance on a mouse and the location of the computer which is usually situated in a private area of the home (Livingstone & Helsper, 2008; Mesch & Talmud, 2010). It is also not easy to monitor children's internet use through a simple glance at the screen because of the multi-tasking ability of the internet across multiple windows (Livingstone & Helsper, 2008). Apart from this, the risks associated with the internet potentially outweigh the risks associated with television viewing or video games due to the extreme nature of violent or pornographic content because, unlike television, the internet does not have a rating system (Livingstone & Helsper, 2008). Another unique feature of the internet is the potential for contact risk from strangers which does not exist for television or (some) video games (Livingstone & Helsper, 2008). In order to address these unique issues, parents may employ technical mediation by installing filtering and blocking software. In addition, parents may also use overt or covert monitoring strategies such as checking the websites that have been accessed (browser history) or monitoring emails or social networking sites of their children. Therefore, apart from monitoring, restrictive mediation and active mediation techniques employed by parents in other media, technical mediation is an additional stretegy used in studying mediation strategies on the internet.

2.4.4 Effectiveness of Parental Mediation

Research suggests that parental mediation has a positive impact in reducing online risks (Rosen, Cheever, & Carrier, 2007), and that it is beneficial for both younger and older children as well as males and females (Khurana et al., 2014). In relation to cyberbullying specifically, parental involvement was associated with less involvement

in cyberbullying both as a victim and perpetrator (Farrington & Ttofi, 2009). Research indicates that children who had rules regarding internet use at home, and specifically restrictive mediation, including which sites could be accessed, were less likely to have experienced cyberbullying victimisation than children who did not have such rules in place (Mesch, 2009). Others also argue that internet restrictions are effective because they limit online activities that involve peer interaction and time spent online, thereby reducing exposure to online harassment (Khurana et al., 2014).

On the other hand, Duerager and Livingstone (2012) found that technical mediation had no effect on reducing children's online risks and that parental monitoring is linked to more, not less, online risk. These authors suggest that this may be as a result of online risks raising parents' awareness and resulting in the implementation of monitoring as a mediation technique, rather than causing higher exposure to online risks (Duerager & Livingstone, 2012). Stated differently, it may be the case that these strategies were implemented as a result of negative online experiences rather than as a prevention strategy. The same study also found that restrictive and active mediation by parents were both linked to less exposure to online risks for their children (Duerager & Livingstone, 2012). Contrastingly, other studies show that simply restricting internet usage of children and adolescents was found to be less effective than active parental mediation and was not found to reduce exposure to pornographic or violent content or harassment and solicitation online (Lee & Chae, 2007; Leung & Lee, 2012), perhaps because prohibition is more likely to be met with resistance but also because children may access prohibited material outside of the home. Moreover, a barrier for implementation of filtering and monitoring software adoption in homes is that they may prevent children from accessing educational information online by blocking certain educational websites (Mitchell et al., 2005).

There may also be some unintended consequences of parental mediation during adolescence. Literature on parental mediation in television indicates that adolescents whose parents used restrictive mediation strategies are more likely to have negative attitudes towards their parents and are more likely to believe that their parents did not trust them (Nathanson, 2002). In addition, they also had more positive attitudes

towards the restricted content and were more inclined to express positive views about watching the restricted content with their peers (Nathanson, 2002). If this finding can be extended to internet use, it suggests that restrictive mediation during adolescence may in fact have a negative effect on online risk behaviours, which was found to be the case (Sasson & Mesch, 2014). Other research has also indicated that control-based parental mediation tactics (i.e. restrictions) resulted in younger adolescents being more likely to engage in risks on social media sites, whereas discussion-based parental mediation resulted in younger adolescents being more likely not to engage with online strangers (Shin & Ismail, 2014). Thus, it appears that discussions with parents (active mediation) is met with less resistance and more responsiveness to parental expectations during adolescence (Shin & Ismail, 2014). Current research calls for acknowledgement of differing developmental stages of children and implementing mediation strategies accordingly. Thus, although restrictive mediation may be appropriate for younger children especially when parents lack technological knowledge, this should not be done at the expense of developing active mediation strategies (Stanaland, Lwin, Yeang-Cherng, & Chong, 2015).

While restrictive mediation techniques appear to be the most common strategy used by parents for online activities, with 42% of children aged 9-17 years old reporting having to follow rules about how long they are online and 35% reporting having to follow rules about when they can go online, studies have shown that perceptions relating to the presence of supervision and monitoring differ greatly between children and parents (Livingstone & Bober, 2006). For example, McQuade and Sampat (2008) showed that two-thirds (66%) of high school students reported that parents provide no supervision of their internet activities, while only 7% of their parents reported that they provide no supervision. Further to this, 86% of parents of 9-19 year olds claim that they do not allow their children to give out personal information online, but only 49% of children state this to be the case (Livingstone & Bober, 2006). Similarly, 62% of parents do not allow their children to use chat rooms, but only 40% of children say that this is a rule in their home (Livingstone & Bober, 2006). These findings point to the importance of gathering both parent and child reports of mediation strategies. The inclusion of child reports on parent mediation strategies has been identified as important for two reasons, namely, children are active participants of parent-child

communication, and children are influenced by their perceptions of parental intentions in combination with parental communication which influences their perception of rules in the home about media use (Darling, 2007; Van den Bulck & Van den Bergh, 2000). Thus, parental mediation is argued to be an interactive process.

Some challenges in terms of parental mediation have already been discussed in previous sections, including the generational gap in technological knowledge. Another important challenge associated with young people's technological sophistication is that they often know how to sidestep content filters and delete histories that indicate the websites they have accessed (Popovac & Leoschut, 2012). These actions are viewed in the literature as attempts at resisting mediation and preserving privacy, linked to the desire for a relaxation of control during the search for autonomy in adolescence.

2.4.5 Balancing Parental Mediation with Adolescent Autonomy

> *"Anxieties about the internet are particularly acute in relation to youth, who are seen as both uncontrollable deviants who must be punished and an impressionable population who must be protected. As a result, the internet is often criticized as a sinister world where naive teens fall prey to various assorted malevolent forces, or teens are vilified for using the internet to indulge their darkest and wildest impulses, below the radar of parental authority." (Boyd, Ryan, & Leavitt, 2011, p. 2; Boyd, 2008).*

A routine response to children's media education is taking on a protectionist adult-centred approach where children are seen as victims in need of protection from media, and parental concerns and practices (rather than children's interests) are the focus (Mendoza, 2009). However, Buckingham (1993) argues that this stance overlooks the opportunities that exist in children engaging in media. In fact, children gain a considerable amount of pleasure from engaging in online activities and, therefore,

instead of parental anxiety which often accompanies the changing technology, parents need to focus on helping children make good choices in media consumption and help them to anticipate the consequences of their choices (Jenkins, 2006). Research has shown that more intrusive parental strategies are not very effective because they often restrict a child's confidence and competence, thereby reducing their internet skills and their ability to effectively handle risky online situations (Smahel et al., 2012). Thus, it is a case of balancing rules and monitoring with a child's desire for autonomy. More recently, research has started to explore a child-centred approach which takes children's autonomy, privacy and rights to self-expression into account and accepts the possibility that parents' and children's views may differ (Livingstone & Bober, 2006; Livingstone et al., 2012). Parental mediation is a complicated task, particularly during adolescence, where parents are responsible for their child's safety while at the same time needing to acknowledge their child's move towards independence and their right to privacy (Livingstone & Bober, 2006). Without acknowledging the latter, "parents and children are positioned as opponents in a struggle rather than in cooperation to resolve an externally-generated problem - a risky technology" (Livingstone & Bober, 2006, p. 11). This family-systems approach to online safety acknowledges the bidirectional influence of adolescents and parents on each other. Thus, online safety is best viewed as a transactional process, both as a function of parenting and individual characteristics of the adolescent (Wisniewski, Xu, Carroll, & Rosson, 2013). However, much of the current research focuses either on adolescents or parents as units of analysis to understand online risks which detracts from the complexity of the interaction, thus more research is needed examining both adolescent and parent perspectives that can broaden understanding of parental mediation in the online context.

A longitudinal study conducted by Padilla-Walker et al. (2012) looked at changes in parental monitoring over the course of early to mid adolescence. The study looked at restrictive and active parental mediation as well as deference. Deference in this study referred to parental decisions not to intervene in any way in their child's media content even though it might offer conflicting values. Often perceived as a passive parenting strategy, Padilla-Walker et al. (2012) suggest that it can also be an active attempt to display trust for the child as they get older by allowing them to make their

own media choices. The study found that restrictive and active mediation decreased with age while deference increased with age, implying that parents in that study had a good understanding of the adolescent's need for autonomy as they get older (Padilla-Walker et al., 2012). Similarly, a study on parental monitoring of adolescents found that the most important predictor of parental knowledge of children's online activities, which is important in addressing online safety, was not behavioural control strategies but the degree to which adolescents felt comfortable to disclose to parents (Stattin & Kerr, 2000). In addition, parents and children who expressed consistent views on household rules about the internet were also families in which communication was perceived to be open, empathetic, encouraging and trusting (Cottrell, Branstetter, Cottrell, Rishel, & Stanton, 2007), which is in line with research presented on protective factors in relation to cyberbullying and online risks (e.g. Byrne et al., 2014; Wells & Mitchell, 2008). This is further reflected in the finding that families were more likely to make use of filtering and blocking software when parents reported low trust in their child's ability to use the internet responsibly and high knowledge about what their child did online (Mitchell et al., 2005). This further emphasises the parent-child relationship and open communication as a means of keeping children safe online.

2.5. SUMMARY OF GAPS IN THE CURRENT LITERATURE

This chapter reviewed some of the key literature in this growing area of research, which examined aspects such as (i) access and use of ICTs during adolescence, (ii) types of online risk behaviours and their prevalence, (iii) cyberbullying debates and definitions and comparisons to traditional bullying, (iv) the prevalence, impact as well as risk and protective factors of cyberbullying, as well as (v) the key parental mediation strategies, the challenges associated with them as well as their effectiveness.

A number of important gaps in current research were identified, most notably:

- The paucity of research examining adolescent behaviours and parent perceptions and including both in research to gain a broader understanding of

the issues given the bi-directional influence of the adolescent-parent relationship.

- The lack of longitudinal data in relation to online behaviours, online risk perception, online risk behaviours as well as cyberbullying.
- A lack of consensus on gender and age differences in relation to online behaviours and experiences.
- No research to date directly compares a developed and developing country context, where access and use of ICTs and, thus, the associated risk experiences, may differ considerably.

More specifically, very little research has examined online risk perception in relation to online risks and cyberbullying, especially longitudinally, which is important since adolescence has been shown to be a vulnerable period in risk taking more generally. Thus, it is important to further explore risk perception in the online context. Furthermore, the literature review highlighted the difficulties in comparing cyberbullying across studies due to the differences in definitions and measures and few studies are thus directly comparable across contexts. The importance of further research in this area is reflected in the serious effects associated with the experiences and the likelihood that the issue will evolve with technology. Moreover, shortcomings in the research exist in terms of online risk behaviours. For example, little is known in relation to exposure to content risks other than online pornography or the nature and extent of contact with online strangers and relationship formation online. Most current studies on sexting have been conducted in the US, thus little is known in terms of the prevalence and nature of these acts in other contexts. In particular, the literature calls for gender and age differences to be explored further given the inconclusive findings on demographics and online risk experiences.

In addition, given the studies highlighting the differences in parental knowledge of children's online activities, the differences between adolescents and parents in reported parental mediation in the home, and considering the evidence outlining the importance of the parent-child relationship as a protective factor in relation to online

risk experiences and cyberbullying, it is important to include both adolescents and parents in future research to better understand these differences. The complexity of online risk experiences and cyberbullying, along with the transactional process between adolescents and parents in online safety underscore the importance of including both in research.

Finally, as mentioned, comparing behaviours, perceptions and experiences in the context of a developed and developing country is important. Most research on online risks and cyberbullying has been conducted in developed contexts, particularly in Europe and the US. While some recent research has been undertaken in developing contexts, exploring the potential similarities and differences in adolescent experiences across settings will not only lead to greater understanding of these issues but will also assist in identifying strategies to address these issues more effectively. Due to the difficulties in comparing findings across studies as a result of differences in definitions and measures, a single study across contexts would flag important social, cultural or policy differences as well as the nature of online experiences of adolescents. This would lead to broader understanding of issues affecting adolescent development and well-being in the digital age.

Bearing these gaps in mind, which the current study aimed to address, the following chapter first describes the adapted version of Bronfenbrenner's Bio-ecological Systems Theory (1979), which was utilised as a framework for the current study. The theoretical framework along with the gaps identified in the literature review inform the current study, which is described in the second part of Chapter 3.

CHAPTER 3

THEORETICAL FRAMEWORK AND OUTLINE OF THE CURRENT STUDY

3.1 INTRODUCTION

Bronfenbrenner's (1979) theory, originally called the Ecological Systems theory, is a comprehensive developmental theory that posits that an individual is shaped by environmental influences. His later work included biological dispositions of the individual and its impact on context, highlighting the bi-directional influences of individuals and different environmental influences. The first part of this chapter describes Bronfenbrenner's original work from the 1970's and 1980's and the key concepts and ideas relating to it, as well as the later versions of Bronfenbrenner's work from the 1990's, namely, the Bio-Ecological Systems theory and the fundamental aspects of the Process-Person-Context-Time (PPCT) model used in his theory (Bronfenbrenner 1994; 1995; Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Evans, 2000). A current adaptation of the theory proposed by Johnson and Puplampu (2008), which takes into account technological influences, is then discussed. This follows on to an outline of the current study, which incorporates the theoretical framework as well as the gaps identified in the literature review.

3.2 THEORETICAL FRAMEWORK

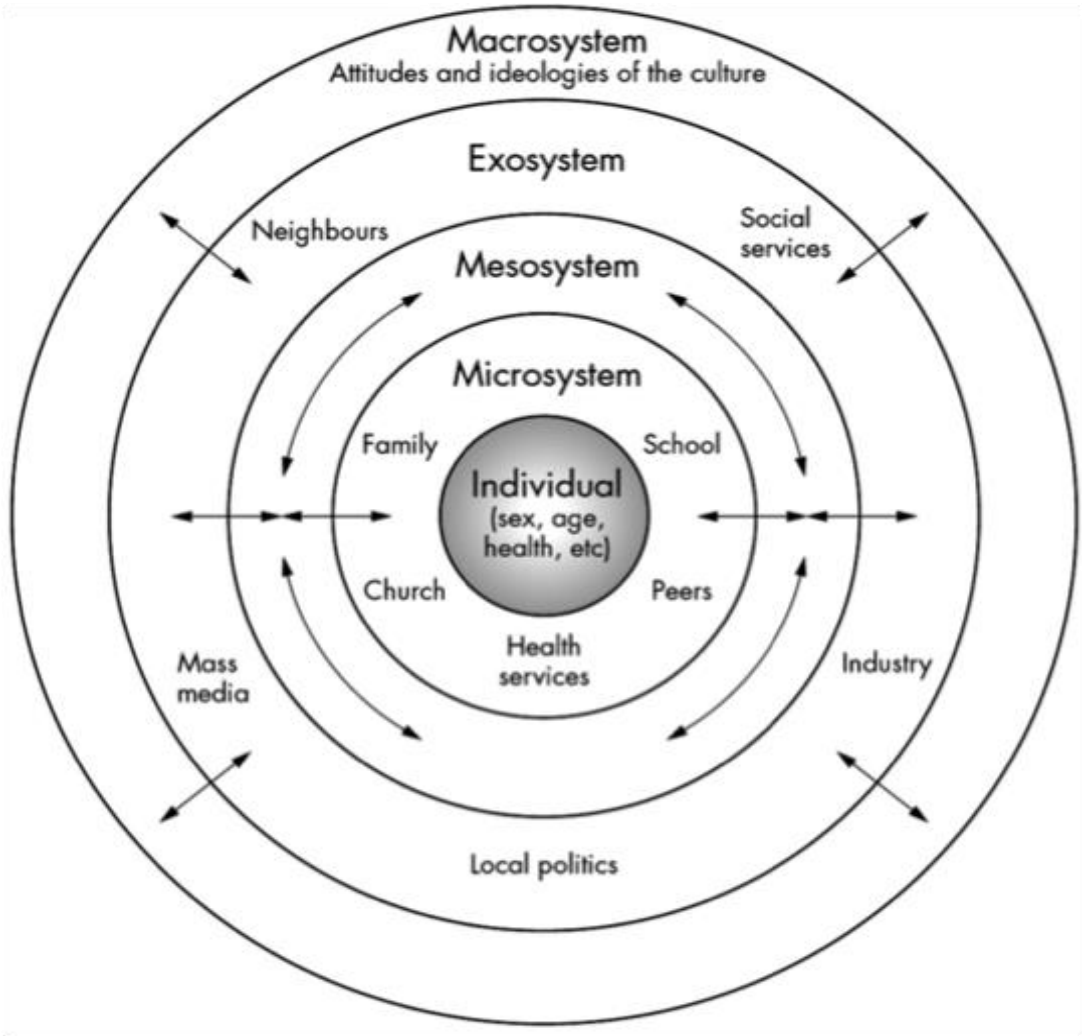
3.2.1 Bronfenbrenner's Original Work

The basic premise of Bronfenbrenner's work is that the individual is influenced by environmental factors, thereby stressing the person-context relationship. The individual is placed within a system of relationships which occur at multiple levels in the environment (Bronfenbrenner, 1979; Darling, 2007). The theory is depicted as a series of concentric circles of influence (see Figure 3.1, p. 56) that have bearing on the child and shows layers of influence of different contexts. According to Bronfenbrenner (1979), there are five key systems of interaction.

The individual is placed at the centre of the circle and the first subsequent layer, closest to the individual, is referred to as the Microsystem. This system encompasses an individual's immediate environment providing the core for physical, social and psychological growth. This is often initially the family context and later also includes the school and peer context, both of which provide a reference point of the world and have the most immediate effect on the individual (Swick & Williams, 2006). Bronfenbrenner (1979) refers to a bi-directional influential interaction implying that, aspects within the Microsystem influence the child, but that children also shape the interactions between individuals and contexts in the Microsystem. The second layer, the Mesosystem, connects aspects within the Microsystem, such as the home and school. Since individuals spend time in more than one Microsystem, the Mesosystem captures the interrelations between them (Tudge, Mokrova, Hatfield, & Karnik, 2009). Thirdly, the Exosystem, is experienced vicariously because it does not have a direct impact on the individual but influences other aspects of the environment (Bronfenbrenner, 1979; Swick & Williams, 2006). For example, extracurricular activities or stress at a parent's job which affects their interactions and relationships in the home are aspects of the Exosystem. The Macrosystem refers to wider social norms, beliefs and values as well as broader political or social influences (including laws, policies and media influences), which impact on neighbourhoods, communities, schools and homes more broadly, but that also have an effect on individual development. The Macrosystem is said to "envelop" the other subsystems, "influencing (and being influenced by) all of them" (Tudge et al., 2009, p. 201).

Finally, the Chronosystem (not depicted in Figure 3.1 as this was added later), is a temporal component in the theory which occurs throughout the systems and takes into account historical or developmental factors that are occurring in the individual's life which affect the systems of influence. This may include broader events or changes in society, the history of relationships within the family, or developmental stages and internal changes of individuals which impact them and the environment (e.g. adolescence) (Swick & Williams, 2006). The Chronosystem adds an important contextual understanding of the influence of the systems on the individual. Each of these systems is argued to provide sources of growth for the individual (Bronfenbrenner, 1979; Swick & Williams, 2006).

Figure 3.1: Bronfenbrenner's Ecological Systems Theory



(Note: This diagram is widely available for download online and is taken from www.ilearn.careerforce.org.nz)

3.2.2 Mature Version of Bronfenbrenner's Theory

Although Bronfenbrenner's work is often explained as highlighting the person-context relationship, he did not focus exclusively on contextual factors. Instead, his later work also included processes of human development. According to Tudge, Mokrova, Hatfield and Karnik (2009), processes explain both the connections between the context (e.g. culture) on the behaviour of interest as well as aspects of the individual (e.g. gender) on the behaviour of interest. While these processes were

already described in Bronfenbrenner's work in the 1980's, the 1990's saw this concept extended to being called 'proximal processes' in which he discussed the Process-Person-Context-Time (PPCT) model (Bronfenbrenner, 2005; Bronfenbrenner & Morris, 2006).

In relation to Process in the PPCT model, Bronfenbrenner and Morris (1998) state that:

> *"... human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate, external environment. To be effective, the interaction must occur on a fairly regular basis over extended periods of time. Such enduring forms of interaction in the immediate environment are referred to as proximal processes".* (p. 996, emphasis in original).

Due to continuously being cited as a theorist of context based on his work in the 1970's, Bronfenbrenner increasingly emphasised the proximal processes as fundamental to his theory in subsequent work (Tudge et al., 2009). The basic tenet is that proximal processes vary in development based on characteristics of the individual, the environment in which the processes occur, as well as changes in time.

The Person aspect of the PPCT model can be divided into three types. Demand characteristics include characteristics such as gender or age which have an impact on individuals' social environment (i.e. the way the individual might interact in the environment). Resource characteristics, unlike demand characteristics, are characteristics of the individual that are not immediately apparent such as their past experiences, emotional resources, skills as well as social and material resources. Finally, force characteristics refer to characteristics such as motivation, intelligence and temperament (Tudge et al., 2009). The Context component of the PPCT model is related to the various systems as described by Bronfenbrenner, namely, Microsystem, Mesosystem, Exosystem and Macrosystem. Time in the PPCT model takes into account what is occuring during a specific interaction or activity (micro-time), the

consistency of interactions or activities across environments (meso-time) as well as the chronosystem which takes into account broader time elements in the individual such as particular developmental stages or a social or cultural element or change (macro-time) (Bronfenbrenner & Morris, 1998; Tudge et al., 2009). The basis of Bronfenbrenner's theory thus became the interaction between these four concepts in the PPCT model.

3.2.3 The Techno-Subsystem: Adaptation of Bronfenbrenner's Theory

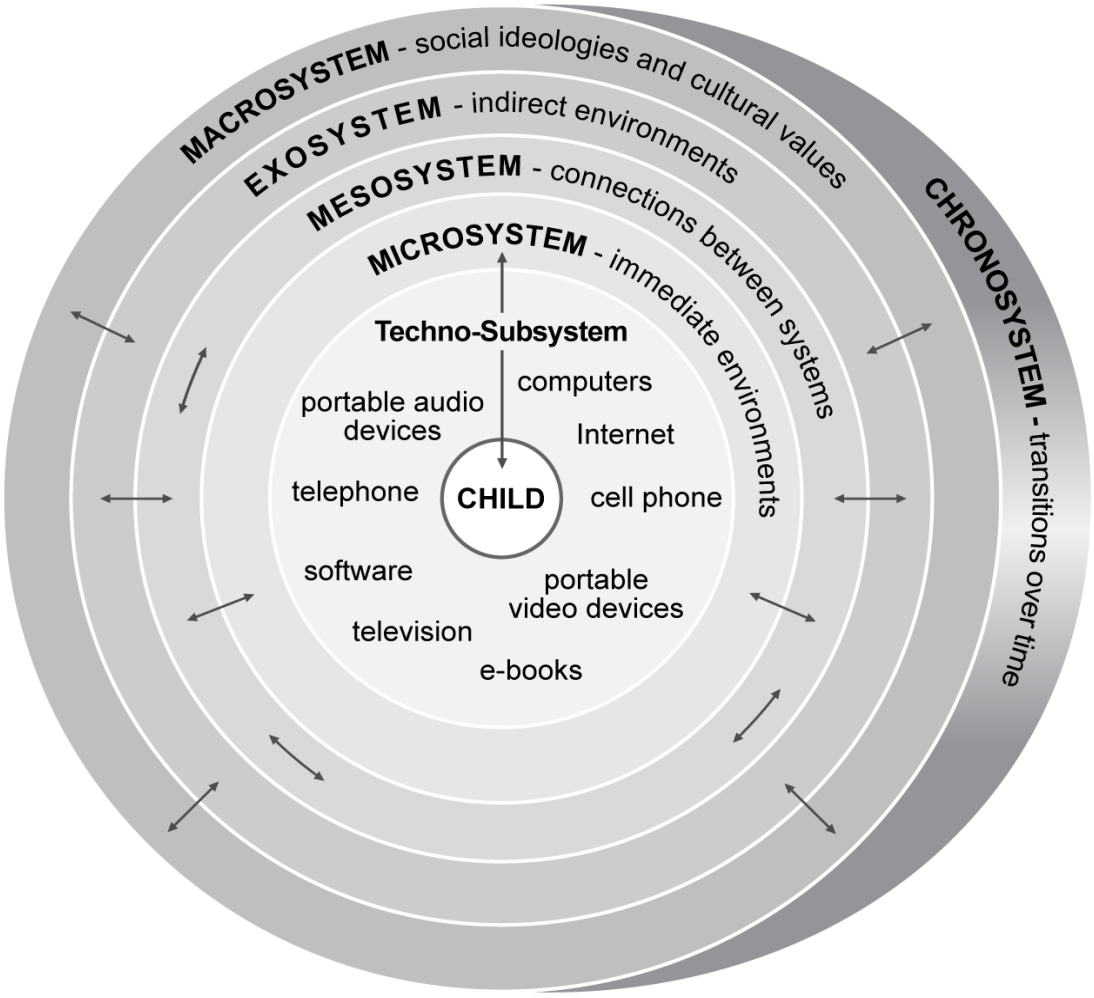
Bronfenbrenner's theory has recently been applied to studying online behaviours and parent-child relationships which impact on online behaviours and experiences. To this end, an addition of a new Ecological Techno-Subsystem has been proposed by Johnson and Puplampu (2008). Due to the increasing presence of ICTs in children's immediate environments and their influence on individuals and the other systems within children's environments (Johnson, 2010a), it is argued to be an important consideration in the developmental theory as it furthers our understanding of environmental influences on development by incorporating and emphasising the influence of technology (Johnson, 2010b). For example, technology influences the way children spend their time, and the activities they engage in can have various effects, both positive (e.g. educational resources and social support) and negative (e.g. online risk experiences and their effects). Moreover, ICTs impact other settings such as the home and school by not only influencing the interactions within these settings but the settings themselves create particular environments for ICT use (e.g. access to ICTs and mediation strategies used). Initial studies on the influence of technology on development highlighted the variation in developmental consequences due to aspects within the home and school environment and thus the importance of ICTs on development (Johnson, 2010a, 2010b, 2010c). For example, ICTs were associated with positive social development for children aged 8-12 years in the study (Johnson, 2010a). As such, this provides a theoretical framework from which both benefits to development as well as risks to development can be examined in relation to ICTs and their influence on different contexts.

Although this new system was proposed as an additional dimension of the Microsystem (Johnson & Puplampu, 2008), Byrne et al. (2014) state that:

> *"...given the ubiquity of the internet and its potential to be present in all areas of one's life, as well as the ability of the child to connect to the outside world, we argue that human-technology interaction can best be thought of as spanning all five of Bronfenbrenner's (1979) systems."* (p. 216).

These researchers argue that the use of ICTs has the ability to influence children and parents across all of the different systems, thus, aspects within each of the systems may be crucial in better understanding not only adolescent online risk behavours and experiences from an individual context but also the influences for parental and school mediation in this regard. For example, the researchers indicate that the Techno-Subsystem operates in the Microsystem through variables such as parenting style or parent-child communication as well as the accessibility of ICTs in the home environment which influence online experiences and behaviours. It can further be thought of as operating in the Mesosystem due to its presence in both the home and school contexts and its influence between the two contexts. In the Exosystem, variables that influence perceptions of the internet such as third-party perceptions and household perceptions of media in general might be important. With regard to the Macrosystem, media, policy and social norms might influence the way ICTs are perceived and, finally, in relation to the Chronosystem, aspects such as the amount of time spent online or other key aspects are important (Byrne et al., 2014). Figure 3.2 (next page) depicts the adapted Bio-ecological Systems theory which includes the Techno-Subsystem, but the argument presented by Byrne et al. (2014), where the Techno-Subsystem is thought to span all of the systems is incorporated into the current study.

Figure 3.2: Ecological Techno-Subsystem: An Adapted Version of Bronfenbrenner's Theory



(Note: This figure is the original figure used in the work of Johnson and Puplampu (2008) and subsequent work by Johnson (2010a, 2010b, 2010c, 2011). It is used here with permission from the original authors.)

3.3 OUTLINE OF THE CURRENT STUDIES

Bearing in mind the gaps that have been highlighted in the literature review as well as the theoretical framework that is presented showing how different contexts are important in the use of ICTs and in better understanding online behaviours and experiences of adolescents, the following sections describe the research that was undertaken and the ways in which the three studies in the thesis aim to address gaps in current research. The thesis is framed by the adapted version of Bronfenbrenner's theory described above and its links with the theory are discussed.

3.3.1 Key Components and Rationale

According to the literature review, online risks, cyberbullying and parental mediation emerge as critical variables to be understood in relation to online safety efforts. The thesis examined these three key variables. Research has found that online behaviours such as access to technology, time spent online (Patchin, 2006; Twyman et al., 2010) and the kinds of online activities individuals engaged in (Mesch & Talmud, 2010; Twyman et al., 2010) affect online risk experiences. Moreover, individuals' risk perceptions are influential as they guide behaviours. Therefore, these aspects were explored alongside the three key variables to gain a broader understanding of adolescent online behaviours and experiences. These behaviours and experiences are also influenced by mediation strategies in adolescents' immediate environments, thus, in addition to examining parental mediation in the home (i.e. microsystem), questions about school mediation were also included to determine differences in approaches to online safety between the two settings (i.e. mesosystem).

The research was conducted with a sample of adolescents and parents in five high schools. Adolescents provided self-reports of their online behaviours and experiences and their parents were asked about their perceptions of their child's online behaviours and experiences. Adolescent self-reports were compared with parent perceptions of their children's online behaviours and experiences in order to determine contrasts in actual online activities of adolescents versus parental views of those behaviours. An initial phase in the research also included teachers' perceptions which will be described in a later section. The research took place in two countries, comparing adolescents and parents in SA and the UK.

Table 3.1 summarises the study variables, samples and contexts of the research. Each of these are discussed in more detail in the following sections which include the rationale for including each component.

Table 3.1: Summary of variables, samples and contexts in the current research

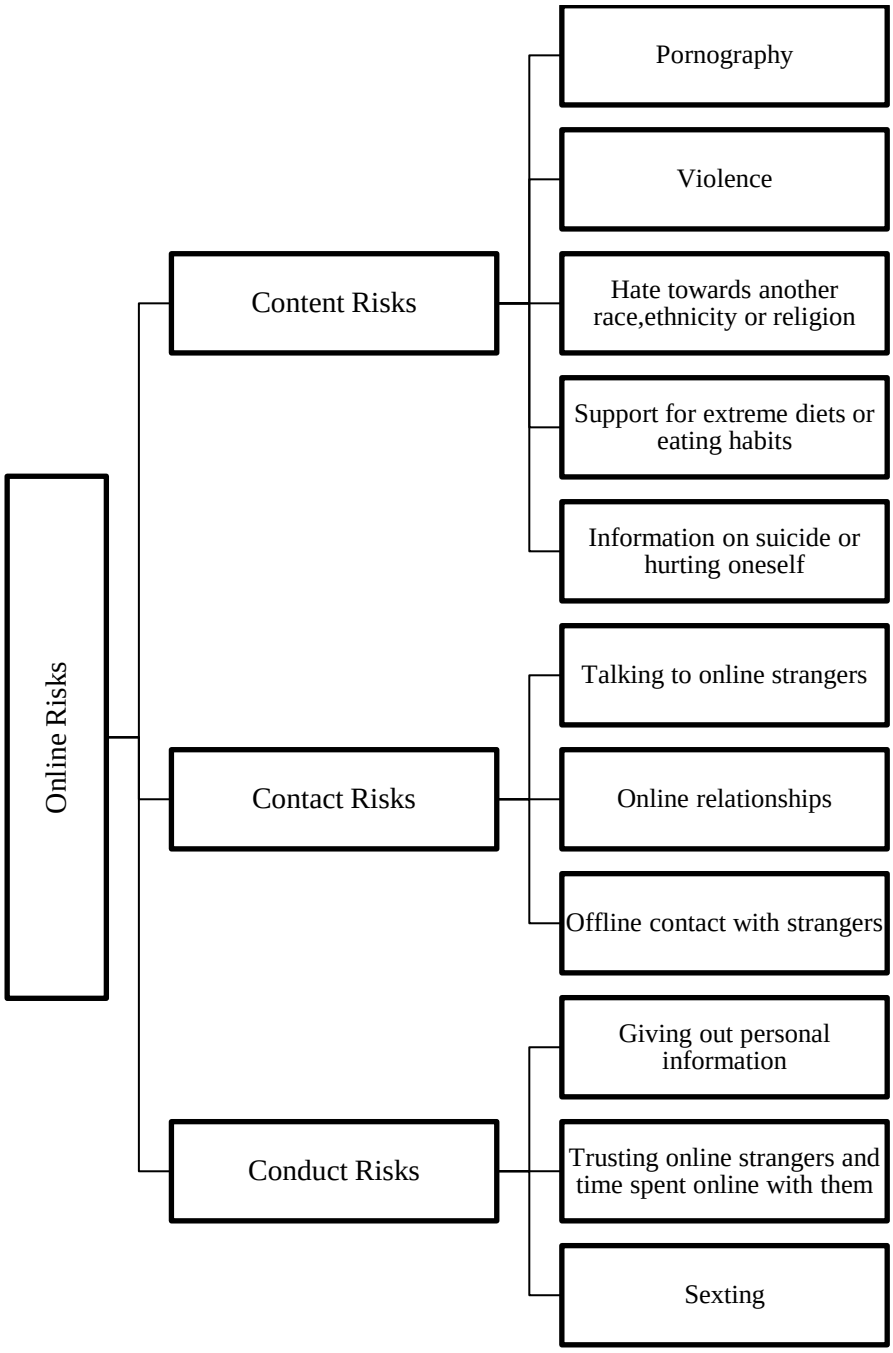
Variables	Samples	Contexts
- Online Behaviours	- **Adolescents**	- **South Africa**
- Risk Perception	- **Parents**	- **United Kingdom**
- **Online Risks**	- Teachers	
- **Cyberbullying**		
- **Parental Mediation**		
- School Mediation		

(Note: The main variables, samples and contexts of focus in this thesis are highlighted in bold font in the table)

3.3.1.1 Research Variables

The three main variables included online risks, cyberbullying and parental mediation. Firstly, three types of online risks as outlined by Livingstone and Haddon (2009), namely, content risks, contact risks and conduct risks were explored. The three categories of online risks presented in this section highlight the key risk taking behaviours and risk encounters of individuals in online spaces. These are important categories in framing adolescent online activities, particularly since literature has shown that these online risks are common globally. Figure 3.3 (next page) shows the three categories of risk which formed part of the research along with the risk behaviours and experiences considered in relation to each type of online risk.

Figure 3.3: Online Risks Considered in the Current Research



(Source: This figure was adapted from DeMoor, S., Dock, M., Gallez, S., Lenaerts, S., Scholler, C., & Vleugels, C. (2008). Teens and ICT: Risks and opportunities. *Retrieved July*, *6*, 2010 as cited in (Valcke, De Wever, Van Keer, & Schellens, 2011) as well as research conducted by EU Kids Online study conducted by (Livingstone & Haddon, 2009; Livingstone, Kirwil, et al., 2013).

In addition to online risks, cyberbullying experiences were also examined. Given the current debates and differences in measures of cyberbullying across studies, as well as discussions surrounding aspects such as repetition in the context of cyberbullying definitions, the thesis explored eight online victimisation and perpetration behaviours that form part of the definition of cyberbullying as outlined in two studies described in the literature review, namely, Patchin and Hinduja (2006) and Willard (2007). However, the criteria of intentionality and imbalance of power were not examined directly (although these were implied in the phrasing in some of the items) and, although data was collected to assess repetition, the studies examined cyberaggression more broadly. Separate questions that followed the section relating to online victimisation and perpetration behaviours were for adolescents who had experienced cyberbullying, i.e. those who had experienced cyberbullying responded to questions about whether they had told someone about the experience, whether they knew the perpetrator and how they had felt, while those who did not experience cyberbullying indicated this on the questionnaire. As such, cyberbullying in this thesis was based on adolescents' subjective views on whether the negative online experiences they reported constituted cyberbullying or not. Thus, instead of the researcher classifying behaviours as cyberbullying based on reported experiences of adolescents, the studies looked at online victimisation and perpetration experiences constituting cyberaggression, with the aim of determining the proportion of participants who perceived their experiences as cyberbullying[3]. Additional questions related to witnessing of cyberbullying were also included.

The final main variable looked at parental mediation in the home. It examined the four key mediation strategies outlined in the literature, namely, monitoring, restrictive mediation, active mediation and technical mediation. Apart from these main variables, online behaviours were explored along with time spent online and the level of access to ICTs, which are important in understanding online risk experiences. Online risk perception, which influences behaviours, were also explored. Examining individuals' online behaviours and perceptions along with the three key variables in this research provided a comprehensive look into online behaviours and risks and aimed to fill an

[3] This is explained further in the Methodology chapter section 4.4.1.4.

important gap in knowledge in this emerging area of study. Questions related to mediation strategies at school were also included to highlight any major differences between the home and school settings.

3.3.1.2 Research Samples

Much of the current research in this area examines online safety either from the perspective of adolescents or from the perspective of adults as units of analysis. Wisniewski, Xu, Carroll and Rosson (2013) argue that this places the focus of online safety either on reducing online risk behaviours of adolescents or on parental control, and excludes the transactional processes involved. Thus, these authors argue that online safety is a function of parenting and individual characteristics of the adolescent and their interaction (Wisniewski et al., 2013).

Considering that adolescents and parents often have unique and very different perceptions on key issues such as online risks, cyberbullying and mediation strategies, including both in research is important in providing a fuller picture of the issue of online safety (Wisniewski et al., 2013). Since limited research to date has examined these issues among both adolescents and parents, the current research included both samples. Moreover, teachers were included in an initial phase to allow an opportunity to examine their experiences and perceptions relating to the key areas considered in this research, indicating the steps schools have taken and the role they play in online safety. Initial data from school personnel as well as a more comprehensive inclusion of the parent sample is important due to emerging research on protective factors associated with online risk experiences and cyberbullying, which highlights that a child's family, school and peer social support were protective factors in this regard (Fanti et al., 2012).

3.3.1.3 Research Contexts

While much research on online risks, cyberbullying and parental mediation has been conducted in Europe and the US (e.g. Hinduja & Patchin, 2008; Livingstone & Bober,

2005), little is known about how these issues translate in a developing country context where differential access to ICTs might exist. In addition, perceptions and experiences of ICTs might vary in developing countries. These factors might influence adolescent online behaviours and experiences and parents' perceptions of those experiences. Therefore, the thesis also examined adolescent and parent behaviours and perceptions of the three key variables in high schools in a developed country (UK) and developing country context (SA).

3.3.2. Research Question and Aims

Based on the gaps identified in the literature, along with the key variables, samples and contexts and their rationale, the thesis addressed the following research question: *What are the online behaviours and perceptions of adolescents and their parents regarding, cyberbullying, online risks and parental mediation and how, if at all, do they differ between the UK and SA?* The study comprised of the following research aims:

1. To understand the nature of online behaviours and perceptions of adolescents in general, as well as their online risk behaviours and cyberbullying experiences (i) in each country overall, (ii) according to adolescents' gender and age and (iii) between adolescents in the UK and SA.

2. To examine the possible differences between parental perceptions of adolescent online behaviours and actual behaviours of adolescents in SA and the UK.

3. To establish the level of parental mediation in adolescents' use of ICTs in SA and the UK as reported by adolescents and parents.

4. To explore changes in online behaviours and experiences of a subset of adolescents over the period of one year.

3.3.3 Research Design

The thesis examined several variables, samples and contexts and, therefore, used a number of approaches in the research design. The research was a mixed methods design incorporating initial qualitative data, namely focus group interviews with adolescents, parents and teachers. This data informed the subsequent quantitative surveys and ensured that the questionnaire that was designed was appropriate in framing the variables of interest for the adolescent and parent samples in both countries.

The quantitative components, including both a cross-sectional and longitudinal design, are the dominant research method used. The cross-sectional questionnaires were administered to adolescents and parents in both countries to determine baseline adolescent trends as well as parent perceptions. It also allowed an analysis of any potential adolescent gender and age trends and differences between the two countries. The longitudinal study included a one-year follow up questionnaire for the adolescent sample only and was administered in one school per country. This was done to determine any changes in behaviours or perceptions over the period of one year as well as to probe some of the baseline findings and obtain a clearer picture in relation to frequency of online risk behaviours and experiences. Few studies have examined these variables longitudinally, therefore, this provides an additional aspect to the current research in its attempt to address some of the gaps in knowledge in this area. The research design and rationale is described in detail in Chapter 4.

3.3.4 The Research and the Theoretical Framework

While the thesis does not attempt to test elements of Bronfenbrenner's theory, it made use of some key elements of the theory to guide the research and its methodology, recognising the importance of including adolescents, parents and schools in gaining a broader and more complete understanding of online risk behaviours, cyberbullying and parental mediation. The theory was also used to contextualise the findings that emerged as well as a framework in the discussions of the findings. Thus, although

findings and discussions are contextualised using the theory, they are not based on the theory. The adapted version of the model, incorporating the Techno-Subsystem was also important for the current study in examining the impact of ICTs on individuals, although this was considered according to the perspective of Byrne et al. (2014), where the Techno-Subsystem is viewed as spanning all of the systems of the individual and not merely the Microsystem.

In considering the later work of Bronfenbrenner and the PPCT model, the thesis examined various aspects related to this. For example, demand characteristics including gender and age were considered in the adolescent sample as well as some aspects of resource characteristics, namely, potential differences in access to technology which may affect behavioural outcomes. Context components were examined in relation to the country of participants as well as including adolescents, parents and teachers in various parts of the study which offer differing contextual perspectives on the use of ICTs. Adolescents were also asked about mediation strategies in both the home and school contexts, representing the processes in the individuals' Microsystems, as well as the links between the two as represented by the Mesosystem. Finally, the time aspects of the PPCT model are reflected in including adolescents across the developmental stage of adolescence (i.e. 12-18 years) which offered an insight into different behavioural outcomes across adolescence cross-sectionally. This was further examined in the longitudinal study with a sub-set of participants, which also included changes in mediation across time in the home and school settings. All of these aspects were considered with the Techno-Subsystem in mind in order to understand the impact of ICTs on behaviours and experiences during adolescence.

The thesis, therefore, has a focus on proximal processes to the extent that it illustrates aspects of the individual such as gender and age in their behaviours and online experiences across time, as well as the elements of the home and school contexts in which these behaviours and experiences occur between the two countries. These aspects have relevance for developmental outcomes and, thus, frame the current research. Further to this, the theory highlights important ways in which various

systems interact, allowing an examination into potential opportunities where different contexts can work together to promote online safety. This holistic approach is useful for subsequent discussions and recommendations that emerged.

3.3.5 Hypotheses

The hypotheses of the cross-sectional study are shown in Table 3.2 (see next page) and are mostly non-directional where there is little research on which to draw or where research findings are conflicting, particularly in relation to gender and age trends of adolescent online behaviours. Where hypotheses are directional, these are based on more established research that has been presented in the literature review. The hypotheses are stated generally along with the list of variables they pertain to and are presented under each study aim (as listed in section 3.3.2). Since little research to date has examined the key variables of interest in this thesis longitudinally, the following hypotheses pertain to the cross-sectional part of the research only and are addressed in the results chapter of the cross-sectional results (Chapter 6). The longitudinal study, reflected in study aim 4 (see page 66), is exploratory and aims to add more detailed data to the cross-sectional findings and, thus, does not have separate hypotheses. This is explained more fully in Chapter 4.

Table 3.2: Hypotheses

Study Aim 1 - To understand the nature of online behaviours and perceptions of adolescents in general, as well as their online risk behaviours and cyberbullying experiences (i) in each country overall, (ii) according to adolescents' gender and age and (iii) between adolescents in the UK and SA.	
H1	There are gender and age differences in relation to adolescents': 1.1 online behaviours 1.2 risk perception 1.3 online risks 1.4 online victimization and perpetration
H2	There is a difference between adolescents in SA and the UK in relation to: 2.1 online behaviours 2.2 risk perception 2.3 online risks 2.4 online victimisation and perpetration
Study Aim 2 - To examine the possible differences between parental perceptions of adolescent online behaviours and actual behaviours of adolescents in SA and the UK.	
H3	There is a difference in adolescent reports and parent perceptions in relation to: 3.1 online behaviours 3.2 risk perception
H4	Compared to parental perceptions, adolescents engage in more: 4.1 online risks 4.2 online victimisation and perpetration
H5	There is a difference in parent perceptions in SA and the UK in relation to: 5.1 online behaviours 5.2 risk perception 5.3 online risks 5.4 online victimisation and perpetration
Study Aim 3 - To establish the level of parental mediation in adolescents' use of ICTs in SA and the UK as reported by adolescents and parents.	
H6	Adolescents report lower parental mediation than parents.
H7	Adolescent reports of parental mediation vary by gender and age.
H8	There is a difference in reported parental mediation by adolescents in SA and the UK.

3.3.6 Summary of the Current Research

In sum, the thesis examined online behaviours and perceptions overall as well as (i) three types of online risks (i.e. conduct, contact and content risks), (ii) cyberbullying victimisation and perpetration, and (iii) four types of parental mediation strategies (i.e. restrictive, monitoring, technical and active mediation). Qualitative and quantitative data was collected for this purpose with a sample of adolescents and parents in two countries, namely, the UK and SA. Teachers were included in the

initial phase of the research and questions on school mediation were included in the adolescent questionnaire in order to determine any differences in approaches to online safety between the home and school contexts. In sum, the research linked three studies: initial focus group interviews, a cross-sectional survey and a longitudinal survey.

Considering the paucity of literature in this area, the research sought to bridge the gap in current knowledge by:

1. Including both adolescent and parent samples to examine their perceptions in relation to the three key variables of interest as well as the differences between adolescent reports and parent perceptions.

2. Exploring the differences in behaviours and perceptions between a developing and developed country.

3. Providing longitudinal adolescent data in relation to the three key variables of interest, which shed light on developmental shifts in behaviours and perceptions over the period of one year.

4. Determining important adolescent gender and age trends in relation to the three key variables of interest since there are conflicting findings in current research.

The following chapter presents the methodology of the research in more detail.

CHAPTER 4

METHODOLOGY

4.1 INTRODUCTION

The thesis explored behaviours and perceptions of adolescents and adults in relation to online risks, cyberbullying, and parental mediation in the UK and SA. As outlined in the literature review, few studies to date have (i) incorporated rich, in-depth data on both adolescent and adult understandings of ICTs in general and cyberbullying, online risks and parental mediation in particular; (ii) compared adolescent reports of their online behaviours and experiences with parent perceptions of their children's online experiences; (iii) compared adolescents and parents between two countries and especially countries from a developed and developing world context; and (iv) even fewer studies have examined these issues longitudinally. In order to address the research question in the most comprehensive manner, considering the paucity of literature in the area to date, the study used a mixed methods design, incorporating both qualitative and quantitative research approaches sequentially and concurrently in the research process.

This chapter provides an overview of mixed methods research designs and the key decisions made in the current studies. The overall research process is described, followed by detailed sections for each study, including the purpose, procedure and samples used.

4.2 OVERVIEW OF RESEARCH DESIGN

The aspects focused on in the thesis have not been researched extensively and, due to its largely exploratory nature, a mixed methods research design was used. Although mixed methods have been used from early on in the 20th century in fields such as cultural anthropology and sociology, Campbell and Fiske's (1959) research brought multiple data collection methods in a single study to the fore (Hanson, Creswell, Clark, Petska, & Creswell, 2005). Mixed methods research has since emerged as a

solid approach in its own right and is currently being considered the third major research paradigm in addition to quantitative and qualitative approaches (Denscombe, 2008; Johnson, Onwuegbuzie, & Turner, 2007). Going against the incompatibility thesis (e.g. Howe, 1988) and the more purist views of the research paradigms, which suggest that quantitative and qualitative research paradigms cannot and should not be mixed, mixed methods research considers both as being important and useful (Johnson & Onwuegbuzie, 2004; Johnson et al., 2007). As such, mixed methods research incorporates both of these positions in its approach to knowledge, building on the strengths of each in a single study (Johnson & Onwuegbuzie, 2004; Johnson et al., 2007). The combining of methods that have "complementary strengths and non-overlapping weaknesses" is considered the fundamental principle of mixed methods research (Johnson & Onwuegbuzie, 2004, p.18). Johnson and Onwuegbuzie (2004) argue that this non-purist and pluralist or compatibility approach offers a logical and practical alternative by allowing researchers to mix and match design components in a way that best answers specific research questions. This leads to more comprehensive, internally consistent and valid findings and provides more elaborate understanding and greater confidence in conclusions (Denscombe, 2008; Johnson & Onwuegbuzie, 2004; Johnson et al., 2007). Mixed methods research offers a pragmatic advantage when the research question being addressed is more complex (Driscoll, Appiah-Yeboah, Salib, & Rupert, 2007). Incorporating definitions offered by numerous leading mixed methods researchers, Johnson et al. (2007) offered the following general definition:

> *"Mixed methods research is a type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g. use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purpose of breadth and depth of understanding and corroboration."* (p. 123).

Philosophically, this approach is situated within pragmatism, drawing on the idea of using diverse approaches and valuing both objective and subjective knowledge (Cherryholmes, 1992). Its eclectic approach to method selection in research studies (where such an approach is best-suited for the research question) results in a greater understanding than single method studies (Johnson & Onwuegbuzie, 2004). This is

based on a contingency approach, which suggests that all approaches (quantitative, qualitative and mixed methods) are superior under different circumstances and that decisions about which approaches are used at which stages are guided by what is best in addressing the research question at hand (Johnson & Onwuegbuzie, 2004). Mixed methods research contains one or more of the five general purposes, namely, (i) seeking corroboration of findings from different methods that study the same phenomenon (triangulation), (ii) seeking elaboration and clarification of findings from one method with results from another (complementarity), (iii) using findings from one method to inform the other method (development), (iv) discovering contradictions that lead to a re-framing of the research question (initiation), and (v) seeking to expand the range of inquiry using different methods for different inquiry components (expansion) (Greene, Caracelli, & Graham, 1989; Onwuegbuzie & Leech, 2004).

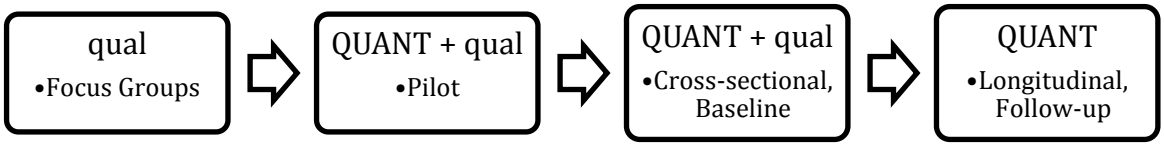
Key decisions in mixed methods research also include the sequencing in the research design and whether the quantitative and qualitative approaches are given equal status or whether one is more dominant. Time ordering is also important in whether the research design is sequential or concurrent (Driscoll et al., 2007; Johnson & Onwuegbuzie, 2004). The current research used initial qualitative data, namely, focus group interviews with adolescents, parents and teachers in SA and the UK, where participants provided their insights and opinions into the key issues surrounding ICTs. Apart from providing rich data of its own accord and an initial starting point for framing the variables of interest, the focus group interviews also informed the development of the questionnaire which was used in the main quantitative parts of the research. This process ensured that the questionnaire was relevant for adolescent and parent participants in both countries and was not presumptuous of the issues but was informed by the participants themselves. The quantitative survey included both a cross-sectional and longitudinal design and the questionnaire was piloted prior to data collection. The cross-sectional study was conducted with adolescent and parent samples in order to compare adolescent reports and parent perceptions of the key variables. It also provided an overview of the key gender and age related findings for adolescent online behaviours and experiences. The longitudinal study provided insights into how online behaviours and experiences changed over time among adolescents. This involved a one-year follow-up for a subset of the adolescent

participants in each country to examine various aspects relating to ICTs in more detail as well as developmental changes in relation to ICTs. Therefore, the questionnaires used for both the cross-sectional and longitudinal parts of the study were very similar and consisted of corresponding sections but, whereas the cross-sectional questionnaire asked participants to report whether they had ever experienced or engaged in particular online behaviours, the longitudinal questionnaire asked participants to report on their behaviours and experiences over the past 12 months. Thus, for the follow-up participants the cross-sectional study acted as a baseline (Time 1), while the follow-up data (Time 2) determined any changes over the period of one year. A survey design for the quantitative studies allowed for data collection for a larger sample, thereby making the data more representative of adolescents and parents in each of the countries. Considering that research on these topics is only recently emerging, particularly in SA where little research in this area has been conducted, a larger sample was important for the research. Using a standardised questionnaire ensured that comparisons could be made more easily and accurately between adolescents and parents in general, as well as adolescents and parents between the two countries.

The research design is, therefore, framed within a dominant quantitative approach, where initial qualitative data informed the subsequent quantitative data collection. This occurred sequentially in the research process, which is an iterative way of collecting data where data collection in one phase informs data collection in a subsequent phase (Driscoll et al., 2007). This approach forms part of 'development' as one of the five general purposes for using a mixed methods design as discussed earlier (Greene et al., 1989; Onwuegbuzie & Leech, 2004). In addition, for both the pilot study as well as the cross-sectional data collection, both of which were predominantly quantitative in nature, each contained qualitative elements which included several open-ended questions to add more detail to participant data for some of the questions. Therefore, while sequential in nature, the approaches were also concurrent at two points in the research process. The research, thus, used both a mixed method design as well as across-stage (focus groups and longitudinal survey data) and within-stage mixed model designs (pilot and cross-sectional survey data). Although the quantitative approaches to the study are dominant, the overall findings

from both were interpreted and integrated in the general discussion and conclusions. This captures the purpose of 'complementarity' as one of the five general purposes for conducting mixed-methods research. The mixed method research design used in this research, with the dominant quantitative approach, is shown in Figure 4.1.

Figure 4.1: Mixed Methods Research Design



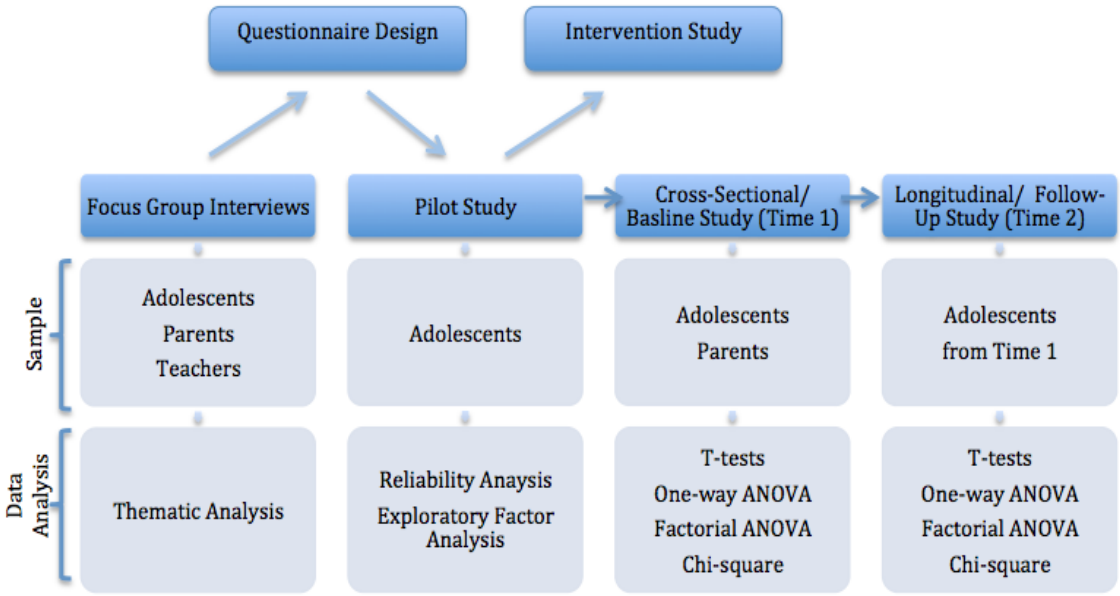
(Note: the dominant approach is capitalised)

Data analysis, which is discussed in detail for each study in subsequent sections, was approached from both a parallel mixed analysis as well as concurrent mixed analysis. Parallel mixed analysis occurred for the focus group data and survey data separately. The data was not compared or corroborated at any stage and discussions for each section of the study were separate. Instead, integration of the findings occurred for the general discussion and conclusion sections. Concurrent mixed analysis occurred for the pilot study and cross-sectional study, where the additional open-ended qualitative questions were analysed in conjunction with the survey data and were a means of providing more participant insight into the issues, since they were directly linked. Integration for this data occurred at the data analysis stage. As a result of this, the subsequent results and discussion chapters are divided according to the initial qualitative data (which informed subsequent data collection) and the quantitative data (cross-sectional and longitudinal) and findings are corroborated in the later general discussion and conclusion chapters in this thesis.

In sum, the research design was carefully selected and guided by the need to ensure that the variables of interest are important in both countries and across participant

samples, which is where focus group interview data is valuable. The focus group data also directly informed the questionnaire that was developed for the subsequent data collection. The pilot study allowed for important reliability and validity analyses to ensure the appropriateness of the questionnaire prior to data collection in the larger samples across both countries. The open-ended questions in the pilot study also allowed for more detailed participant feedback. Survey data was then collected for a larger sample for the cross-sectional study (which also included some open-ended questions) to (i) determine differences between adolescent report and parent perceptions of online behaviours and experiences, (ii) differences in gender and age of adolescents and online behaviours and experiences, and (iii) differences between the two countries. This was followed by the longitudinal survey for a subset of the adolescent participants to determine changes in online behaviours and risk perceptions, as well as their online risk behaviours and cyberbullying experiences in the past 12 months. Each stage of the research process played a vital role in avoiding bias and improving validity of the conclusions emerging from the data and allowed findings to be built on across the research process. Taken together, this research process addressed the research question in the most comprehensible way possible and provided a more complete picture of the variables of interest, thereby filling an important gap in current knowledge and understanding in this emerging field of study. Each stage of the research process (as shown in Figure 4.2) along with the samples selected and data analysis is discussed in more detail in following sections.

Figure 4.2: Overview of Research Process[4]



Data for each study was collected at various stages between June 2013 and September 2015 (see Table 4.1 on the next page). The quantitative research took place near the start of the school year in both countries[5]. Given that many social and behavioural changes occur in short periods of time during adolescence, it was important to collect data in both countries at similar intervals for accurate comparisons. In each country data was thus collected within the first 4 months of the commencement of the school year.

[4] An additional aspect to the study included an intervention, but a full discussion of this is beyond the scope of the thesis. The intervention was developed and conducted with the pilot study participants and based on their reports of their online behaviours and experiences. Workshops were developed using the Information-Motivation-Behavioural Skills Model (Fisher & Fisher, 1992; Fisher, Fisher, & Harman, 2003) and specifically targeted the online risk behaviours reported by the adolescents with the goal of enhancing their online risk perception and safer online behaviours. Risk perception was measured either before or after the intervention and showed that the intervention was effective in increasing online risk perception of adolescents after just one session.

[5] The school year commences in early September in the UK and late January in SA.

Table 4.1: Data Collection Timeline for each Study

Research Process	SA	UK
Focus Groups	July 2013	June 2013
Pilot Study	November 2013	-
Cross-Sectional Study/ Baseline (Time 1)	April 2014	September-October 2014
Intervention Study	June 2014	-
Longitudinal Study/ Follow-up (Time 2)	April 2015	September 2015

The following sections discuss each study in detail.

4.3 FOCUS GROUPS

4.3.1 Introduction and Rationale

Since both adolescents and adults formed part of the research, focus group interviews with adolescents, parents and teachers in both countries were important in gaining an understanding of the way in which issues relating to ICTs were conceptualised. This qualitative data informed the development of the questionnaire used for subsequent data collection, ensuring that the questions that were developed were relevant and were meaningfully addressing the key issues for participants in both countries. The qualitative findings also provided invaluable insights into issues relating to online media, not only in relation to individual participant views but also in the interactions between participants. This allowed for a greater understanding of the key variables of focus.

4.3.2 Study Design

Focus group data is crucial when investigating under-researched areas (Braun & Clarke, 2006). According to Kamberelis and Dimitriadis (2013), focus groups allow researchers to gather more focused, richer, more complex, and more nuanced information. This kind of information was not only important as an initial exploration

that would inform subsequent data collection methods in the research, but it also provided insights that would not have been uncovered using quantitative methods. This is due to focus groups placing attention on individuals as units of analysis, while simultaneously also occurring within groups and highlighting interesting group dynamics and interactions, which benefits the research.

Focus group schedules were designed and provided some standardisation across focus groups. The focus group schedules included guiding questions that would initiate discussions into each topic under investigation. The guiding questions prompted discussions into each aspect of interest to the research, but participants had the freedom to guide the discussion in ways that were meaningful to them. Thus, the interview schedule was semi-structured, allowing for flexibility for participants to steer the conversation in different directions. This resulted in more complex interactions and data.

4.3.3 Research Question and Interview Schedule

The focus groups were guided by the following research question: *What are the general behaviours and perceptions of adolescents, parents and teachers regarding online behaviours and risks, cyberbullying, and parental mediation?*

Separate focus group interview schedules were designed for adolescents, parents and teachers. The interview schedules overlapped to a large degree because they covered the same main topics, but also contained some minor variations depending on the participant group and the insights they were likely to have. For example, the teacher focus group related more to gaining an understanding of a school perspective, parent focus groups related more to parenting dynamics and experiences in relation to technology, and adolescent focus groups were more interested in behaviours, perceptions and experiences in online spaces. Collectively, these three different perspectives provided a more complete picture of behaviours and perceptions relating to ICTs.

Despite the slight variations in the way in which the questions were posed between the different focus group participants, all of the focus groups consisted of six main parts. These parts are listed and briefly described in Table 4.2 (see next page). For more details please see the focus group schedules in Appendix B.

Although the topics for the focus groups are described as separate units in Table 4.2 for the purpose of clarity, discussions were fluid and dynamic and flowed from one part into another, thereby following a natural conversation. In addition, apart from the introduction and conclusion sections, the topic areas did not always follow the order described in the focus group interview schedule. Again, this was due to the progression and direction of the conversation as it evolved among participants in each focus group discussion.

The total duration of the focus group was planned at a maximum of 85 minutes and varied between focus group interviews based on the availability of participants. The average duration of focus group interviews was 60 minutes.

Table 4.2: Focus Group Interview Schedule Summary

	PART	DESCRIPTION	DURATION
1	Introduction	The researcher introduced herself and the topic, explained the study and purpose of the focus group as well as how the focus group will work and how the data will be used. Consent forms were collected at this stage.	± 10 minutes
2	Online Behaviours	This area covered aspects such as which programs are used, which devices are used most often to access the internet, the importance of technology in participants' lives as well as the amount of time spent online.	± 10 minutes
3	Online Risks	Participants were asked about their perceptions of online risks including what kinds of risks exist, which programs the risks are most likely to be encountered in, which risks are seen as most serious as well as how vulnerable they believe they/their children/their students are to these risks.	± 15 minutes
4	Cyberbullying	This part of the focus group discussed aspects such as what cyberbullying entails, how it happens, where it happens, the prevalence, characteristics of the victim and perpetrator, witnessing of cyberbullying on online spaces as well as reporting of cyberbullying.	± 25 minutes
5	Parental Mediation	Participants were asked about their technological skills, the rules that are implemented at home and at school and their attitudes in relation to parental mediation strategies.	± 20 minutes
6	Conclusion	The researcher allowed the participants an opportunity to clarify or add to anything that was discussed in the focus group and to highlight anything else that was not mentioned in the discussions. Participants were also given the opportunity to ask the researcher any questions and were thanked for their participation.	± 5 minutes

4.3.4 Participants

A total of 49 participants took part, 23 were from the UK and 26 were from SA. Participants were recruited through contact with high schools, a parent organisation, a church youth group and the University of Buckingham. The sampling procedure relied on available participants who were interested in taking part in the study within each of the organisations that were approached. It is argued that these more random sampling methods reduce potential for researcher bias (Shenton, 2004) since the researcher does not have a pre-existing idea of the participant profiles and the

contributions that they might make. Despite relying on available participants and employing more random sampling strategies, specific requirements for inclusion of participants were as follows:

- The age bracket for inclusion in the adolescent focus group interviews was 13-17 years old.
- For inclusion into the parent focus group, adults needed to have at least one child in the age range of 13-17 years old.
- Teachers who took part in the focus group interviews were included only if they taught at a high school level, i.e. children aged between 13-17 years old.

An average of six participants took part per focus group interview, with a range of 3-11 participants. In cases where there were fewer participants in a focus group, the focus group was repeated with an additional group where possible. A total of 8 focus groups were conducted between June- July 2013. Table 4.3 summarises the sample.

Table 4.3: Focus Group Participant Summary

	Focus Group	Participant Gender	Number of Participants
UK	Adolescents	4 Females, 4 Males	8
	Parents	7 Females	7
	Teachers I	1 Female, 2 Males	3
	Teachers II	3 Females, 2 Males	5
			Total: 23
SA	Adolescents I	4 Females	4
	Adolescents II	8 Males	8
	Parents	9 Females, 2 Males	11
	Teachers	All Females	3
			Total: 26

4.3.5 Data Collection Process

Prior to data collection, all adolescent focus group participants were given an information sheet and a parental consent form to take home (see Appendices C and D) which explained the study, the nature of data collection as well as how the data would be used. Adolescents were only included if they had returned a completed parental consent form. The adult participants were also given an information sheet, which provided background information about the study so that they were aware of what participation entailed.

At the introductory part of the focus group interview, participants were again informed about the study, its purpose, how the interview would work, as well as how the data would be used. All of the adolescents, parents and teachers were then asked to complete an assent form confirming that they wanted to take part in the study, that they understood that it was voluntary and gave permission for their data to be used in the research. All of the focus group sessions were audio recorded. This was also reflected in the assent form (see Appendix E). Each focus group was facilitated by the researcher, which resulted in a standardised approach to data collection. Participants were given the opportunity to clarify and add to any of the topics covered in the session at the end of the focus groups.

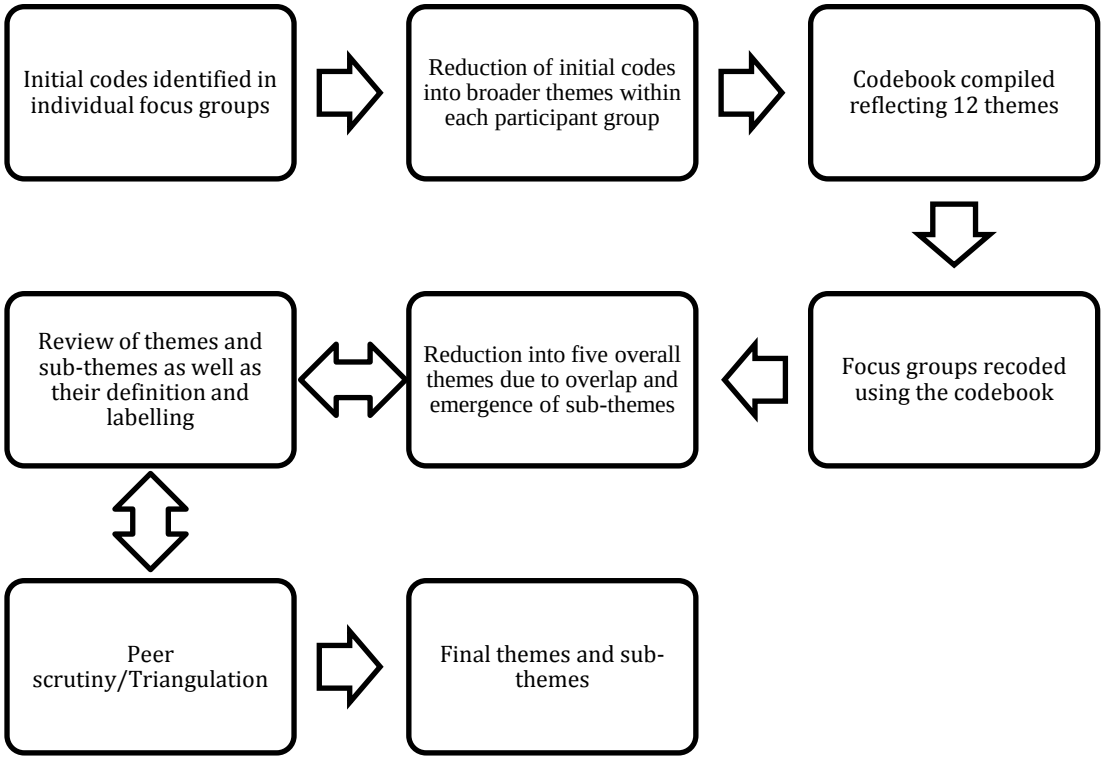
4.3.6 Data Analysis

Thematic analysis was employed, which involves the search for emergent themes within the data in order to describe the phenomenon (Fereday & Muir-Cochrane, 2008; Willig, 2013). Data analysis was carefully structured and consisted of a number of systematic steps to ensure that all of the different perceptions across the groups were adequately represented and formed cohesive themes.

Focus groups were transcribed by the researcher and data analysis commenced with data being read and re-read, allowing for patterns within the data to be recognised.

This process results in emerging themes becoming the categories of analysis (Fereday & Muir-Cochrane, 2008). Data was analysed inductively, implying that the data guided the themes that emerged rather than existing theoretical models. Themes within the text often emerge at different levels when using thematic analysis (Attride-Stirling, 2001), as was the case with the current analysis. The steps in data analysis are summarised in Figure 4.3 and are described in more detail in the remainder of this section.

Figure 4.3: Steps in Focus Group Data Analysis



The first step in the analysis involved assigning initial codes to each focus group interview separately. Coding involves the recognition of important moments within the data and encoding them prior to interpretation (Fereday & Muir-Cochrane, 2008). Once each of the individual focus group interviews were coded, themes across the different adolescent, parent and teacher focus groups were explored. The initial, descriptive codes from the individual focus group analyses were then grouped according to generally similar topics across focus groups (Step 2). This was done for

each group of participants, i.e. adolescents, parents and teachers. The next step was to compile a codebook using these initial and broader codes from Steps 1 and 2 that captured some of the main themes across the focus groups. In summary, up to this point focus groups were (i) coded individually, (ii) recoded into broader codes within each participant group, and (iii) a codebook was created that reflected all of the broader themes across all of the groups.

This initial codebook listed 12 themes with a short description about what was covered within each theme. The original codes in the individual focus group interviews were recoded according to the 12 themes set out in the codebook (Step 4). At the end of this process all of the focus group interviews were captured within these 12 themes. From this process it is clear that analysis occurred in a step-by-step, but not linear way, with constant back and forth between the focus group data, coding, interview groups and broader theme categories. According to Braun and Clarke (2006), thematic analysis involves "constant moving back and forward between the entire data set, the coded extracts of data that you are analysing, and the analysis of data that you are producing" (p. 86).

The next step in data analysis involved examining the 12 themes in the codebook. These were re-checked and any similarities and overlap between themes were identified. At this stage, some of the themes were combined into a single theme due to overlap and several sub-themes were identified. This process resulted in the identification of five overall themes and eight sub-themes. In consultation and discussions with the supervisor, the researcher reduced the sub-themes to six as a result of further overlap between themes. Thus, the five themes and six sub-themes were agreed. This part of the process also involved ensuring that the labels ascribed to the themes fully captured the issues and argument covered in them.

It is argued that peer scrutiny of a research project is an important aspect of feedback in qualitative data analysis (Shenton, 2004). Therefore, prior to finalising the five themes and six sub-themes described above, an independent auditor at the University

of Buckingham, who has experience in qualitative research, triangulated the findings. The auditor does not have a background in this area of study and, therefore, provided a fresh perspective on the emergent themes. This exercise assisted in assessing the validity of the coding process. The auditor was presented with eight pages of randomly selected quotes from any of the focus group transcripts, as well as a list of the five overall themes only (i.e. the sub-themes were not included). The triangulation process involved reading each quote and attributing it to one of the five themes in the list. This process validated the thematic analysis that had been conducted because opinions differed on only four of the 27 quotes presented, despite the auditor not having access to the sub-themes to facilitate the task. A discussion took place with the auditor surrounding these four quotes and, once presented with the sub-theme categories, they placed all four quotes in the same sub-theme as initially done by the researcher. An adjustment was also made in the naming of one of the sub-themes as a result of this discussion, ensuring that it captured the argument more fully. The themes and sub-themes were thus finalised and are presented in the first results chapter.

4.4 QUESTIONNAIRE DESIGN AND PILOT STUDY

This section provides an overview of the main sections of the questionnaire and its design[6], followed by the pilot study process and sample. The purpose of the pilot study was to test the reliability and validity of the questionnaire through both statistical analysis as well as participant feedback prior to the cross-sectional data collection. The pilot study also served to verify the survey administration procedure. This is discussed in the following sections.

4.4.1 Questionnaire Description and Design

The questionnaire was designed based on the focus group discussions, key literature, as well as adapting several items from previous research (these are indicated in the

[6] The final adolescent questionnaire used in the cross-sectional study is attached as Appendix F as an example. The parent questionnaire was very similar, with items rephrased to reflect their perceptions of their child's online experiences.

following sections). Sections in the questionnaire included demographics, online behaviours, risk perception, cyberbullying victimisation and perpetration (including an item relating to witnessing of cyberbullying) and parental mediation. These are discussed in the following sub-sections. For each section of the questionnaire, adolescents reported on their own behaviours and experiences while parents responded according to their perceptions of their child's online behaviours and experiences. The same corresponding sections of the questionnaire were thus used for both samples, but re-worded appropriately. The questionnaire was available online (www.surveymonkey.com) and on paper (printed from Survey Monkey website).

4.4.1.1 Demographics

For demographics, aspects such as gender, grade/year group, age, school and race/ethnicity[7] were included. Online behaviours were examined in terms of participants' access to technology as well as the most likely device and location they access the internet from. This section also asked about the number of hours adolescents usually spent online per week, as well as 10 items to determine which online activities adolescents engaged and how frequently, with response options ranging from (1) Every day to (5) Never. Examples of online behaviours include social networking, use of chat rooms and online gaming.

4.4.1.2 Risk Perception

Literature on risk perception is extensive, and items for this scale were compiled according to categories presented in risk perception literature (e.g. Benthin, Slovic, & Severson, 1993; Boholm, 1998). Various statements were presented according to categories relating to risk perception, and include: (i) knowledge about risks (e.g. 'People on the internet are usually honest about who they are'), (ii) fear of risks (e.g. 'I worry about things that can go wrong when I am on the internet'), (iii) controllability of risks (e.g. 'I cannot control the things that happen to me on the

[7] This was included solely as a sampling verification tool and to describe the samples more fully. Race/Ethnicity was an open-ended question and did not impose any categories on participants. The question was also optional in the questionnaire. No data analyses were conducted on race/ethnicity in relation to the main variables of the study.

internet'), (iv) costs vs. benefits of risks (e.g. 'The benefits of the internet are far bigger than any dangers'), and (v) desire for regulation (e.g. 'It is important that adults keep a watch over teenagers' internet behaviours'). Several of the items were adapted from previous research on online risk perception (e.g. Turow & Nir, 2000). Participants indicated how much they agree or disagree with each statement on a 5-point Likert scale from (1) Strongly Agree to (5) Strongly Disagree and included a neutral mid-point option.

4.4.1.3 Online Risks

Online risks included eight general conduct risk items, which were used for the adolescent and parent comparisons for the cross-sectional study. Items included adolescents reporting how much they agree or disagree with a number of statements about trusting online strangers, giving out personal information about themselves online, sending pictures to online strangers and how comfortable they are talking to people online compared to people in real life, while parents indicated their perceptions about their child's online behaviours. Responses were recorded from (1) Strongly Agree to (5) Strongly Disagree.

In addition to the eight general items already discussed, more specific questions relating to the three types of online risks were included in the adolescent survey[8]. This included an additional 4 conduct risk items that focused on sexting, 4 contact risk items about talking to and meeting online strangers and establishing online romantic relationships, and 5 content risk items relating to exposure to violent, sexual or racist content online or harmful information (some items for these scales were adapted from Livingstone, Kirwil, Ponte & Staksrud, 2013). Previous research relating to sexting outlined the importance of differentiating between sending and receiving of sexting material (Klettke, Hallford, & Mellor, 2014), while Livingstone et al. (2012) also examined sexting behaviours further by examining sending and receiving of sexting material to known individuals or to online strangers. Sexting behaviours as examined

[8] Parents did not respond to these more specific questions as they were highly personal and parents would be unlikely to know whether their child might have engaged in these more specific behaviours. Thus, only the general conduct risk items were used to assess parents' perceptions.

by Livingstone et al. (2012) were replicated in the current study. Response options for the additional items used in the adolescent questionnaire included how frequently these were experienced from (1) Never to (5) 6 or more times.

4.4.1.4 Cyberaggression and Cyberbullying

Eight behaviours that form part of the cyberbullying definition, as outlined by Patchin and Hinduja (2006) and Willard (2007), were examined. However, as mentioned in the previous chapter, these items reflected cyberaggression more broadly in the current studies. The items covered aspects such as participants having had rumours or gossip spread about them online, having been impersonated, or receiving threats or having embarrassing pictures posted online. The same items were included for both online victimisation and perpetration but were rephrased appropriately to reflect these different roles. The items asked respondents how frequently they had experienced any of the behaviours online, from (1) Never to (5) 6 or more times[9] [10]. This was followed by questions relating to cyberbullying, asking adolescents whether they had experienced cyberbullying, who they had told about their cyberbullying experience, and whether they knew the identity of the perpetrator in the cyberbullying incident they experienced. Along with the various response options, an option that states that they had not experienced any cyberbullying was included. From this it was possible to gauge the participants' perceptions about whether any of their experiences of cyberaggression constituted cyberbullying, since not all of these experiences might be viewed as cyberbullying by adolescents. This was done to avoid imposing labels of

[9] Occurrences were categorised to reflect number of occurrences rather than more general (and subjective) labels relating to frequency (e.g. 'always', 'often', 'sometimes' etc.) that have been used in much of the previous research. This was important as it provided an insight into how many times participants may have experienced these behaviours online, allowing for more detailed data relating to frequency by quantifying the experiences. A study by Li (2007) used a similar approach by using response options: 'less than 4 times', '4-10' times and '10 or more times'. In the current study '6 or more times' was chosen as the upper limit as this emerged as appropriate in the focus group discussions and subsequent piloting of the questionnaire. A much smaller proportion of participants selected this response option, indicating that this was suitable for use as the upper limit.

[10] In the cross-sectional study, adolescents indicated how frequently they had ever experienced each negative online interaction. In the longitudinal study, adolescents indicated how frequently they experienced each negative online interaction in the past year. As outlined in the literature review, studies use differing time frames which impact on prevalence rates and, therefore, comparisons that can be made across studies. The current research opted to use two different time frames with one acting as a baseline, while the other indicated the extent of cyberaggression and cyberbullying in a shorter time frame. This is a strength in the current study as it allowed for two time frames to be examined. This is discussed in more detail in the relevant sections that follow.

cyberbullying on participants given the current debates around definitions, thresholds, and aspects such as repetition of behaviours in order to constitute cyberbullying and the different criteria used in different studies on the topic. Researchers argue that placing various thresholds relating to repetition and other criteria for the labelling of acts as cyberbullying helps to exclude trivial peer conflict, but it can also exclude very serious cases of sexual harassment or distribution of images which may only occur on one occasion but have very serious consequences (Beckman, Hagquist, & Hellström, 2013). Therefore, imposing criteria for measuring cyberbullying may fail to detect more serious cases that occur less frequently and, as outlined in the literature review, it is argued that some acts do not need to be repeated in order to constitute cyberbullying (Dooley, Pyżalski, & Cross, 2009; Menesini et al., 2012). Similarly, as argued by Grigg (2010), intentionality is a criterion that should be based on the victim's perception of the event and the impact it has had on them. These arguments motivated the approach used in the research by examining behaviours that might constitute cyberbullying (i.e. online victimisation and online perpetration, which examine cyberaggression more broadly), while labelling of acts as cyberbullying was assessed subjectively. As such, the results chapters and discussions that follow differentiate between these experiences. Also important to note is that during the Focus Group study, adolescents' understanding of the term 'cyberbullying' was assessed by asking them to reflect on the definition in an individual task. Although their definitions were not analysed in detail in this thesis, the findings indicated that they had a good understanding of the term and this supported the approach taken.

In addition to these questions, three items on emotional distress as a result of the online experiences were also included (adapted from Topçu, Erdur-Baker, & Capa-Aydin, 2008) in order to determine the severity of some of the negative online experiences and their effects on adolescents. Participants were also asked how often they witness cyberbullying occurring in an online space.

4.4.1.5 Parental Mediation

In addition to overall parental mediation items such as the existence of rules about internet use at home, whether consequences to breaking these rules exists and how easy it is to get around the rules at home, respondents were also asked specific questions relating to four types of parental mediation (adapted from Duerager & Livingstone, 2012; Livingstone & Helsper, 2008). This section of the questionnaire included 4 monitoring items (e.g. 'Has a parent or other adult in your home checked the websites you have been on?'), 9 restrictive mediation items (e.g. 'When I am at home I have to ask when I can be online?'), 6 active mediation items (e.g. 'Has a parent or other adult in your home explained why some websites can be good or bad?') and 4 technical mediation items (e.g. 'Has a parent or other adult in your home installed a program that blocks or filters some websites?'). Response options included 'yes', 'no' or 'I don't know' for all of the subscales apart for restrictive mediation where response options ranged from (1) Always to (5) Never[11].

A separate section examining mediation in the school context was also included in the adolescent survey for the cross-sectional study in order to determine the extent of the differences in mediation between school and home setting. Adolescents were also asked about any actions they had taken to preserve their online privacy from their parents, which would provide a more complete picture of challenges in parental mediation.

4.4.2 Pilot Study Sample and Procedure

The pilot study sample consisted of 91 females between the ages of 13-15 years old (grades 8-9) in one school in SA who completed the online version of the questionnaire on the Survey Monkey website. This version of the questionnaire was piloted specifically in order to test the technical aspects of administering the online

[11] Response options varied because, compared to technical mediation (such as installing filtering software), active mediation (such as having helped a child when something bothered them online) and monitoring (such as having checked on their child's social networking profile) which have either occurred or have not occurred as far as participants are aware, restrictive mediation (such as restricting the time children can spend online) are more likely to be experienced in varying consistency in the home.

questionnaire. In schools where the paper version of the questionnaire was used, it was printed from the Survey Monkey website and the layout was the same for all participants. The pilot study included completing all of the items in the questionnaire in order for reliability and validity to be determined for the various scales. It also included a feedback section which asked participants how long the questionnaire took to complete, as well as a number of open-ended questions about their opinions on various aspects such as relevance, which sections they enjoyed and which they did not, as well as their suggestions on how to improve the questionnaire. These opinions were assessed in order to make the necessary changes to the final questionnaire.

As a result of the pilot study, several items were removed and, since no additional items were included, data collected for the pilot was included for the cross-sectional study. This accounts for the additional school in SA compared to the UK. Although the questionnaire was only piloted in one country due to time constraints, the changes made to the questionnaire and administration were extended to adolescent and parent participants in both countries. A total of 12 parents in SA also piloted the online parent questionnaire and, although no reliability and validity analyses were conducted, the feedback was positive and no technical issues emerged.

4.4.3 Item Analysis and Construct Validity of the Questionnaire Scales

Item analysis, the systematic evaluation of the effectiveness of each item on a scale, was conducted on all of the main scales in the questionnaire. All negatively worded items were recoded prior to the reliability analysis. Internal consistency was assessed using the Cronbach's alpha (α) statistic, which tests split-half reliability of a given scale by splitting the data into two halves in every possible combination and providing an average correlation coefficient for each possible split. This is the most common measure of scale reliability and is represented by the formula below (Field, 2009):

$$\propto = \frac{N^2\overline{Cov}}{\sum s^2_{item} + \sum Cov_{item}}$$

Analyses showed that the Cronbach's alpha's ranged from .63 to .89. Following the removal of several items, Cronbach's alpha was improved to .63 to .92. Although it is usually considered satisfactory for research purposes to have scales with an internal consistency of above .7 (Field, 2009), for the purpose of this exploratory study an alpha of above .6 was deemed appropriate. Although detailed reliability and validity testing apart from the exploratory analysis in the pilot study is beyond the scope of this thesis, item analysis for the different scales was verified for the larger cross-sectional sample and indicated a range of .67-.91 for the different scales, thereby confirming reliability.

Changes to the questionnaire based on the pilot study resulted in the removal of 10 items from both the adolescent and parent questionnaires. One item in both the Cyberbullying Victimisation Scale and the Cyberbullying Perpetration Scale was re-worded as some respondents did not know the meaning of the word 'hacking'. This item was clarified as 'someone pretending to be you online by posting on your behalf or going into your account without your permission'. Table 4.4 summarises the changes made to the questionnaire as a result of the pilot study. It shows the Cronbach's alpha for each scale before and after the removal of items.

Table 4.4: Reliability of Questionnaire Scales before and after changes

Scale (Original No. items)	**Changes made**	**Reliability-Before Changes**	**Reliability-After Changes**
Risk Perception (20)	5 items removed	.75	.78
Online Risks (10)	2 items removed	.69	.75
Online Victimisation (9)	1 item removed, 1 item reworded	.81	.82
Online Perpetration (9)	1 item removed, 1 item reworded	.63	.63[12]
Parental Mediation (14)	None	.74	.74
Restrictive Mediation subscale[13] (11)	2 items removed	.89	.92

[12] Due to the victimisation and perpetration scales comprising of the same items that are worded either from the perspective of a victim or perpetrator, any changes made on one scale was also made on the other to ensure that the scales were similar. Thus, the same changes were made for the cyberbullying perpetration scale even though it did not increase the overall reliability of the scale.

Validity testing was undertaken for two of the scales, namely, risk perception and parental mediation. Construct validity was examined for these two scales because they are both based on pre-determined dimensions outlined in the literature. The risk perception scale is based on extensive risk perception research (for example, Kasperson, 1988; Boholm, 1998; Sjoberg, 2000 and Slovic & Peters, 2006), which identifies several dimensions (discussed in detail in the literature review chapter). The parental mediation scale is based on the EU Kids Online research looking at active mediation, monitoring, and technical mediation[14] (Livingstone & Bober, 2005). An exploratory factor analysis determined whether the scales are in fact measuring what they set out to measure, since this analysis examines whether the interrelationship between various items in a scale represent broader dimensions or factors (Pretorius, 2007). To this end, Principal Component Analysis with an orthogonal rotation (Varimax) was selected as no underlying assumptions about the structure of variables is required for this analysis, and the rotation method assumes that factors are uncorrelated (Pretorius, 2007). The default SPSS criterion for extracting factors (Kaiser's criterion of retaining factors with an eigenvalue greater than 1) was applied.

Prior to analysis, the feasibility of factor analysis was determined using the Keiser-Meyer-Okin (KMO) measure which should be above the bare minimum of .5 (Fields, 2009). Although both scales had only slightly higher KMO measures (.68 for Risk Perception and .67 for Parental Mediation) than the minimum, sampling adequacy was met for exploratory factor analyses. This was confirmed by examining the anti-image matrix. Bartlett's test of sphericity was also significant for both variables, indicating that factor analysis was appropriate for the two scales.

[13] The restrictive mediation scale was examined separately despite being a subtype of parental mediation on account of the response options being presented on a 5-point Likert Scale ('always', 'often', 'sometimes', 'rarely' and 'never') rather than the 'yes', 'no' and 'I don't know' options employed in the other three sub-scales of parental mediation.

[14] Restrictive mediation was not included as part of the factor analysis because of the response options differing from the other three subscales. Since restrictions on activities and time spent online are fairly straightforward items to compile, this was not seen as particularly important for validity testing compared to the other three scales.

For the Risk Perception scale, exploratory factor analysis was conducted on the remaining 15 items in the scale. The analysis indicated that 5 factors could be extracted from the data, which collectively explained 60.6% of the variance. Two of the factors were combined into a single dimension due to some overlap, thus four factors were retained. The items in the scale loaded on the different dimensions as outlined in the risk perception literature, thereby demonstrating construct validity. These categories included: (i) costs versus benefits of the internet; (ii) knowledge of risks; (iii) fear and controllability of risks; and (iv) desire for regulation.

Factor analysis for the Parental Mediation scale originally indicated five factors to be extracted from the data with an eigenvalue greater than 1, which collectively explain 64.6% of the variance. However, only 3 factors were retained: two sets of factors were combined into a single factor, and one item was altered from the suggested SPSS output on account of theoretically fitting in better with its second-highest loading factor on the SPSS output. Since only one alteration was made from the SPSS factor loadings, exploratory factor analysis highlighted that construct validity is evident for the current scale and that the items tap into the dimensions outlined in the literature, namely, active mediation, technical mediation and monitoring.

In addition to construct validity, the feedback section of the pilot study questionnaire also determined face validity of the instrument, with positive feedback on each section.

4.4.3 Changes to Administration

In addition to the important verifications and changes made to the final questionnaire based on the pilot study, several changes were made to the administration of the questionnaire prior to the large-scale data collection. The changes were made according to the researcher's experiences with the pilot study as well as teacher feedback regarding consent forms. Originally, parents were contacted electronically to provide consent. This did not result in a good response rate, perhaps due to parents

not being used to responding electronically to letters coming from schools. Thus, being required to go online to do a task provided an additional step for parents that is outside of the norm of signing letters and giving them to their children to return to school, which may have accounted for the lower response rate. As a result, printed consent forms were distributed to students to be given to parents to sign. The letter had a tear-off slips for consent and slips were returned to school prior to the pilot study. Collecting the consent forms added a great deal of administration for both the school and the researcher, and took a great deal of time. As a result of this, discussions with schools for the cross-sectional study resulted in an opt-out method of consent, which will be described in a later section.

The pilot study also confirmed that the response rate of parents would be significantly lower than for adolescents. Thus, a larger number of adolescents were targeted in order to ensure that the parent sample would be sufficiently large for comparisons to be made.

4.5 CROSS-SECTIONAL STUDY

The cross-sectional study included both an adolescent and parent sample. The cross-sectional study provided detailed data for adolescents overall as well as highlighting important gender and age differences. It also allowed for an exploration into the accuracy of parents' perceptions of children's use of ICTs compared to actual behaviours reported by adolescents.

4.5.1 Sampling Procedure and Data Collection Process

Upon receiving the relevant ethical approval and clearance (see section 4.7 on Ethical Considerations), selected schools were contacted regarding the study based on probability simple random sampling. Specific geographical areas were targeted and a number of randomly selected schools were approached within those areas in each country. Schools that expressed an interest participated in the research, thus the schools were self-selecting based on the probability sampling steps taken. A total of five schools participated in the study, three from SA and two from the UK. Schools in

SA were selected from different urban areas in Cape Town[15], which included central Cape Town, the southern suburbs and the northern suburbs. The school in central Cape Town (which was included in the pilot study) is a private (independent) school, while the other two schools are public (government funded) schools. In the UK, schools in Buckinghamshire and Northamptonshire were targeted, resulting in one school in each location. Both schools are government funded.

School principals and headteachers were sent an initial informative email describing the study as well as what participation in the study would entail. The researcher scheduled a meeting with the schools that indicated interest in the study. Schools selected the classes for participation in the study within the specified age range. Decisions were based on classes where a class session could be isolated for data collection within the scheduled curriculum and within the study time frame. Thus, although the schools were selected by means of simple random sampling, the participants within each school were selected by means of non-probability sampling (due to reliance on availiability).

Schools benefited from participation in the study as they each received a research brief outlining the key findings from their school, enabling them to address issues by implementing policy changes or interventions. Apart from agreeing for data collection to take place in a class session, the schools also agreed to an opt-out method of consent where parents would be informed about the research and be given ample time to inform the school if they did not wish their child to participate in the study during the scheduled class session. A physical information letter was sent home to parents via the students (see Appendix G) and was also distributed electronically to parents' email addresses which were on school record and that are used frequently for communication with parents. The information sheets were sent to parents along with a cover letter from the school. Parents were given a period of two weeks to object to

[15] According to Pillay (2012), who examined cyberbullying among adolescents in SA, there was no difference in cyberbullying prevalence between adolescents from poorer or wealthier families or between adolescents from urban or rural areas. Although this should be examined further, as a result of this finding the current study did not examine socio-economic status of families nor urban-rural differences.

their child's participation in the study by informing their child's class teacher. A reminder was also sent one week prior to the scheduled data collection. This method of consent was found to be more viable during the pilot study and schools readily agreed as they deemed the study important to be a part of. It was also seen as less administration on their part, while still giving parents the opportunity to withhold consent. The students were also provided with detailed information about the study and completed an assent form (see Appendix H) prior to data collection. Student participation was thus voluntary based on parental consent. No parents withheld consent, although a total of 17 students across both countries chose not to participate in the study.

Surveys were either administered online or on paper, with three of the five schools opting for the online data collection method. The two schools that made use of the paper data collection method were both in SA. Questionnaires were administered by the class teachers. Prior to this, the researcher met with the teachers to brief them about the study as well as guidelines on the administration procedure to ensure that data collection was standardised. Written guidelines were also provided after the meeting, which included step-by-step instructions and important considerations for the data collection process. This included important points such as reminding students that participation is voluntary, that questionnaires are anonymous and that they did not have to answer any questions they were uncomfortable with. It also outlined key points about the environment data collection should take place in. For example, emphasis was placed on the questionnaire being an individual task, that participants should not discuss questions, and that seating should be appropriate to ensure that participants can keep their answers hidden. The guideline also included points about the teacher's role in data collection. Most importantly, teachers were informed that they could assist with any questions regarding technical aspects of the questionnaire such as explaining instructions or response options, but were told not to assist with interpretation of questions. Due to logistical reasons, the parent questionnaire was only available for completion online. Parents were emailed a link to the online questionnaire. All questionnaires took 35-40 minutes to complete.

4.5.2 Participants

A total of 1350 participants made up of adolescents and parents took part in the cross-sectional study across 5 schools (SA: n = 900, UK: n = 450)[16]. Table 4.5 shows the proportion of adolescent participants in each school.

Table 4.5: Proportion of Adolescent Participants in Each School in SA and the UK

Country	School Type	Adolescent Participants
SA		
School A	Government funded/Public	46.1% (n = 310)
School B	Government funded/Public	41.8% (n = 282)
School C	Independent/Private	12.1% (n = 81)
UK		
School D	Government funded/Public	56.6% (n = 180)
School E	Government funded/Public	43.4% (n = 138)

In SA, a total of 673 adolescents (females: n = 390, males: n = 283) aged 12-17 (M = 14.44, SD = 1.12) in grades 8 - 11 participated in the study. In the UK, 320 adolescents (females: n = 211, males: n = 109) aged 13-18 years old (M = 14.57, SD = 1.38) in year groups 9 - 13 took part in the study. Table 4.6 displays the proportion of adolescent participants in each country according to age.

[16] Please note that the following sections describing the samples vary in the sum of total number of participants (i.e. not always a total of 1350 or 900 for SA and 450 for the UK). This is due to a small number of missing data in some demographic information.

Table 4.6: Age of Adolescent Participants in SA and the UK

Age	SA Sample	UK Sample
12	2.0% (n = 14)	-
13	20.5% (n = 141)	27.3% (n = 87)
14	26.0% (n = 179)	26.6% (n = 85)
15	34.0% (n = 215)	23.2% (n = 74)
16	14.1% (n = 97)	9.4% (n = 30)
17	3.5% (n = 24)	11.6% (n = 37)
18	-	1.9% (n = 6)

For comparative purposes all of the adolescent respondents were grouped into age categories that represented early (12 - 13 years), middle (14 - 15 years) and late (16+ years) adolescence. These labels 'early', 'middle' and 'late' adolescence are used in the results chapters to describe age related differences. Table 4.7 shows the proportion of adolescents in each category according to these categorisations.

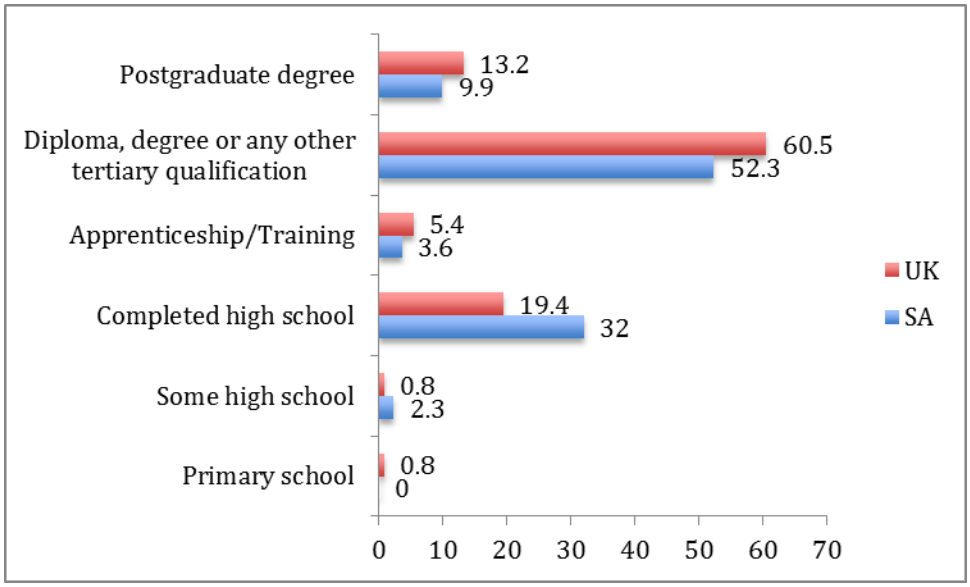
Table 4.7: Proportion of Adolescents in SA and the UK according to Age Categorisation at T1

Age Category	SA Adolescents	UK Adolescents
Early (12-13 years)	22.5% (n = 155)	27.3% (n = 87)
Middle (14-15 years)	59.9% (n = 413)	49.8% (n = 159)
Late (16+ years)	17.6% (n = 121)	22.9% (n = 73)

One parent of each adolescent was invited to take part in the parent questionnaire resulting in a total SA parent sample of 227 (females: n = 173, males: n = 54) with an age range of 31-58 years (M = 42.73, SD = 5.02) and a total UK sample of 130 (females: n = 105, males: n = 25) with an age range of 32-66 years (M = 47.12, SD = 5.93).

Most of the parents who completed the survey were married or in a relationship (SA: 81.9%, n= 185, UK: 88.9%, n = 112). For the vast majority of parent participants English was their first language (SA: 93.4%, n= 211, UK: 100%, n = 130). Parents in both countries also reported similar educational qualifications (see Figure 4.4), indicating that the two samples were fairly similar in terms of language, age, marital status and educational background.

Figure 4.4: Highest Educational Level Completed by Parent Sample in SA and the UK (%)



Participant race/ethnicity was used solely as a sampling verification tool. In SA, a total of 20.8% (n = 160) of adolescents and 17.6% (n = 40) of parents opted not to respond to this question. The remaining findings indicated that 35.4% (n = 272) of adolescents sampled were 'Coloured'[17], 28.6% (n = 220) were 'White', 12.4% (n = 95) were 'Black', and 2.7% (n = 21) were 'Indian'/'Asian'. The parent sample was 64.3% (n = 146) 'Coloured', 14.1% (n = 32) 'White', 2.2% (n = 5) 'Indian'/'Asian' and 1.8% (n = 4) 'Black'. The UK sample consisted almost entirely of a 'White British' background.

[17] 'Coloured' describes individuals of mixed origin in South Africa. During the Apartheid era, in order to keep a race-focused and divided society, four racial categories were introduced that are still widely used today. These include Black, White, Coloured and Indian/Asian.

4.5.3 Data Analysis

The Statistical Package for the Social Sciences (SPSS) version 22.0 was used to analyse the data. Both descriptive and inferential statistics were used. For the inferential analyses, each variable in the study was calculated into an overall score for each respondent indicating, for example, their range of online behaviours, level of risk perception, online risk behaviours, the number of victimisation experiences they had online, the number of perpetration behaviours they engaged in and the extent of parental mediation in their home. Variables were scored the same for both adolescent and parent participants but, while adolescent scores reflected their own online behaviours the parent scores reflected parents' perceptions of their child's online behaviours. The scoring of each variable is described in more detail in the paragraphs that follow. These scores for each variable were used to conduct the two main analyses for the cross-sectional part of the study, to indicate the overall trends for each variable.

The first analysis included independent samples t-test analyses to compare the adolescent and parent samples as the adolescent and parent data was not matched, thus the adolescent and parents samples comprised separate samples[18]. The variables that were compared included time spent online, online behaviours, risk perception, online risk behaviours, online victimisation and perpetration as well as parental mediation. The second analysis related to age and gender differences of adolescents and was conducted using 3x2 Factorial ANOVAs (i.e. the three age categories: early, middle and late adolescence as well as the two gender categories) using the overall scores for each variable in each country. These two analyses were conducted for all of the key variables where assumption of homogeneity of variance was met. When this assumption was violated for the independent samples t-tests analysis, the adjusted t-test statistic is reported. Where Factorial ANOVAs were not possible due to the

[18] The sensitive and highly personal nature of some of the questions and the administration of the questionnaires through the schools with different teachers meant that any identifying information of participants might have compromised their confidentiality. As a result of this, the study opted to examine adolescent and parent samples as a whole rather than conducting paired analyses. Although this is a limitation to the study to some extent (see Chapter 10 specifying the study limitations and recommendations for future research), the exploratory nature of the study and the desire to capture a large sample (which would have been undermined by paired data techniques) in the two countries resulted in the decision to conduct independent samples analyses.

violation of this assumption, separate independent samples t-tests and one-way ANOVAs were conducted for the gender and age category variables respectively. In this case the adjusted t-test was reported for gender, while the more robust Welch's statistic was reported for age. These cases are clearly indicated in the results chapter. Effect sizes were reported using *r* for the t-test analyses and η^2 for Factorial ANOVA and one-way ANOVA[19].

In addition to using the scores for each variable to report overall trends, the individual items in each variable were examined in more detail using chi-square analyses to highlight differences between adolescent gender and age as well as between the adolescent and parent samples. Effect sizes for the chi-square analysis included φ for a 2x2 contingency table and *V* for 3x2 (or larger) contingency table[20]. While multiple statistical tests were conducted, the alpha level was retained as $p > .05$ due to the exploratory nature of some of the aspects in the study. This was deemed appropriate for this purpose, however, in order to address the potential ramifications in interpreting the multiple tests (i.e. Type 1 error), the medium and large effect sizes are clearly noted in the results chapters[21] and are the main focus of the discussion chapters. Although some of the interesting or important findings with smaller effect sizes are also noted in the discussions, the larger effect sizes are given more attention due to the use of multiple tests.

Overall scores for each variable were calculated by combining the responses on the individual scales. Although the scales varied in their response options, most were on a 5-point Likert scale (as described in section 4.4.1). Negatively worded items were reverse scored. Responses were transformed into a yes/no dichotomous variable. A score of '1' was given when an individual reported engaging in the behaviour ('yes')

[19] Effect sizes were interpreted as follows: For *r* values ±.1 represents a small effect, ±.3 represents a medium effect and ±.5 represents a large effect; for η^2 .02 represents a small effect, .13 represents a medium effect and .26 represents a large effect.

[20] Effect sizes are interpreted as follows: φ is comparable to *r* (see previous footnote). For *V* with two degrees of freedom, .07 represents a small effect, .21 represents a medium effect, and .35 represents a large effect. For *V* with three degrees of freedom, .06 represents a small effect, .17 represents a medium effect and .29 represents a large effect.

[21] Effect sizes are noted either in the text or in the result tables. In the tables, a † and †† symbol is used to indicate a medium and large effect respectively.

and a score of '0' was given when an individual did not report engagement in the behaviour ('no'). Thus, higher scores reflected higher engagement in the behaviours measured by each variable. For example, a higher score for online behaviours implies using a wider range of online programs and a higher score for online risks implies engaging in more online risk behaviours. As mentioned, adolescent scores reflected their own online behaviours, while parent scores reflected their perceptions of their child's online behaviours. For the parental mediation variable, both groups of participants indicated whether specific mediation strategies were present in their home or not.

The maximum score for each variable varied according to the number of items in the scale (see Table 4.8, next page). For risk perception, which measures perceptions rather than behaviours, scores were calculated differently. For this variable, where the response options were on a 5-point Likert scale indicating how much an individual agreed or disagreed with each statement, options were given scores of 2, 1, 0, -1, or -2. Thus, risk perception scores were represented on a continuum from -30 to +30 as the scale consisted of 15 items. Higher scores represented higher risk perception, while lower scores on the continuum represented lower risk perception.

While the same scores were used for both the adolescent and parent comparisons as well as adolescent gender and age comparisons, the total score for the online risk behaviour variable differed. A maximum score of 8 was used for the adolescent and parent comparisons, while a maximum score of 21 was used for the adolescent gender and grade comparison on account of additional items in the adolescent survey that included the 8 general online risk items (used in the adolescent/parent comparison) as well as 4 items on sexting, 4 contact risk items, and 5 content risk items.

Table 4.8: Maximum Scores For Each Variable

Variable	Maximum Score
Online Behaviours	10
Risk Perception	Range: -30 to +30
Online Risks	8 or 21
Cyberbullying Victimisation	8
Cyberbullying Perpetration	8
Parental mediation	23
-Restrictive Mediation	9
-Technical Mediation	4
-Monitoring	4
-Active Mediation	6

Although the scoring reduced the data down to simple dichotomous variables (apart from risk perception), this was deemed appropriate to provide the overview of adolescent online behaviours and parent perceptions of those behaviours. In addition to this, separate analyses were conducted that indicated the frequencies with which adolescents engaged in various online behaviours. In this analysis, the 5-point Likert response options were scores as 4 = Every Day, 3 = 4-6 times a week, 2 = 2-3 times a week, 1= Once a week or less, and 0 = Never. This scoring system was utilised in previous research (Patchin & Hinduja, 2015). Thus, for those analyses, the higher the score the more frequently individuals engaged in online behaviours, online risks and cyberbullying. These are also presented in the cross-sectional results chapter in the sections discussing overall trends.

Open-ended questions were used to obtain more details in relation to some of the issues covered in the questionnaire. Broader thematic categories were created for the open-ended questions. These are presented in the results in the order of frequency with which participants mentioned each category, along with accompanying quotes.

4.6 LONGITUDINAL STUDY

The longitudinal study comprised of adolescents from one school in each country. This part of the research provided data about any changes to online behaviours and risk perception of adolescents in the past 12 months, as well as an indication of online risk behaviours and cyberbullying experiences in the past year since the baseline study. While the cross-sectional study asked adolescents to report on whether they had ever engaged in various online risk behaviours or ever had any negative online experiences, the longitudinal study asked the subset of participants to report on their behaviours and experiences over the past 12 months since the baseline questionnaire. As discussed in the literature review, studies looking at cyberbullying use different time frames, ranging from asking adolescents about their experiences in the past month (e.g. Dempsey, Sulkowski, Nichols, & Storch, 2009), the past few months (e.g. Dehue, Bolman, & Völlink, 2008; Kowalski & Limber, 2007), the past year (e.g. Juvonen & Gross, 2008; Ybarra & Mitchell, 2008) or ever (e.g. Li, 2008; Topçu et al., 2008). The differences in time frames not only result in different prevalence rates but also affect comparisons between studies (in addition to the differences in definitions and measures used). The current research, therefore, examined two different time frames (i.e. ever and the past year). The longitudinal study itself allowed for an insight into changes in behaviours and perceptions among adolescents over time as well as an indication of how frequently online risks and cyberbullying occurred within a shorter time frame than was assessed at T1. Comparing this subset of adolescents' T1 and T2 data is an opportunity to assess trends over time and draw firmer conclusions on adolescent online behaviours.

It should also, however, be noted that this part of the research was exploratory in nature and, while changes in online behaviours and experiences could be due to age there are a number of potential confounds such as changes in parental or school mediation in the past year (as a result items were added to the questionnaire to reflect this – see section 4.6.3). However, other broader societal changes or changes in online behaviour trends were not be controlled for in the exploratory study. As such, these findings and the corresponding conclusions should be interpreted with caution.

4.6.1 Sampling Procedure and Data Collection Process

One school in each country took part in the follow-up study one year later. Data was collected in School B in SA and School D in the UK. In SA, grades 9 and 10 in School B completed the questionnaire at T1 (mean age = 15.09), thus data was collected for the same participants at T2 who were subsequently in grades 10 and 11 at follow-up. Data was collected using a paper version of the questionnaire as was done at T1 and took place during a class session. In the UK, a wider range of year groups took part in School D at T1, namely year groups 9-13 (mean age = 14.79). Thus, at follow-up in School D participants in year groups 10-13 were invited to take part in the study one year later. The adolescents who had since completed high school did not participate. Similar to T1, UK adolescents completed the online survey on Survey Monkey. Although most participants completed the questionnaire in class, the older year groups were encouraged to complete it in their own time. All of the same data collection procedures were utilised as in T1 with parental consent and assent in both countries.

4.6.2 Participants

A total of 424 adolescents (SA: n = 277; UK: n = 146) initially took part in T2. However, 65 participants in SA and 28 participants in the UK indicated that they had not completed the questionnaire at T1 in the previous year and were, thus, excluded from the longitudinal data analysis. This screening question was added at the beginning of the questionnaire at T2 to ensure that only those who participated at T1 were included in the follow-up analyses. This left a total sample of 212 adolescents in SA and 118 in the UK. Adolescents in SA (male: n = 87, female = 121) were in grades 10 and 11 and aged between 15-18 years (M = 16.05, SD = .90). Adolescents in the UK (male: n = 43, female = 75) were in year groups 10-13 and aged between 14-18 years (M = 15.39, SD = 1.09). At T1, adolescents were grouped as 12-13 year olds, 14-15 year olds and 16-17 year olds. These ages were compared with 13-14 year olds, 15-16 year olds and 17-18 year olds at T2 since participants were one year older at follow-up. At T2 these new categories represented early, middle and late adolescence for ease of categorisation. Comparisons could thus be made in changes

from early to middle adolescence as well as middle to late adolescence in the longitudinal study. Due to the older age range of participants in SA, no T2 participants comprised the category of early adolescence. Table 4.9 shows the proportion of adolescents in each age category at T2.

Table 4.9: Proportion of Adolescents in SA and the UK according to Age Categorisation at T2

Age Category	SA Adolescents	UK Adolescents	Overall Sample
Early (13-14 years)	-	21.2% (n = 25)	7.6% (n = 25)
Middle (15-16 years)	71.4% (n = 150)	57.6% (n = 68)	66.5% (n = 218)
Late (17-18 years)	28.6% (n = 60)	21.2% (n = 25)	25.9% (n = 85)

4.6.3 Changes To Questionnaire at Time 2

The questionnaire at T2 made use of the same sections and questions as T1, however, whereas questions in T1 asked adolescents whether they had ever experienced any of the behaviours listed, at T2 adolescents indicated whether they had experienced any of the behaviours in the past 12 months. In relation to perceptions (i.e. in the section on conduct risks as well as online risk perception), which included a 5-point Likert scale from (1) Strongly Agree to (5) Strongly Disagree, the response options remained the same. All open-ended questions were omitted at T2 and the section on parental mediation was also excluded. Instead, questions were added asking adolescents whether they thought the rules about ICTs at home and school had become more strict, less strict or stayed the same. Adolescents were also asked whether they had received any workshops or talks at school about online safety in the past year since the baseline. These questions were important in assessing changes in rules and communication in the two contexts because, as mentioned, these may have impacted any changes in behaviours and perceptions within the past 12 months. This was taken into account when interpreting the findings.

An important addition to the questionnaire at T2 was the section on traditional bullying using items that were adapted from the Olweus Bullying Scale (e.g. Solberg

& Olweus, 2003), since literature has indicated a potential link between traditional bullying and cyberbullying (e.g. Erdur-Baker, 2010; Schneider, O'Donnell, Stueve, & Coulter, 2011). Although this did not directly relate to the research question, this was added in order to determine where the issue of cyberbullying is situated within the broader issue of bullying and school safety in each country. Similar to the way in which cyberbullying was assessed, adolescents reported on their experiences of victimisation and perpetration on a range of face-to-face encounters such as spreading of rumours, ignoring someone or leaving someone out of a group on purpose, threatening someone or being physically hurt by someone in the past year, followed by their subjective account of whether they had been involved in traditional bullying. Thus, subjective reports of cyberbullying experiences and traditional bullying experiences in the past year were assessed at T2.

4.6.3 Data Analysis

Longitudinal data was analysed in the same way as the cross-sectional data utilising scores for range and frequency for each of the main variables in the study. Scores were calculated in the same way as described in section 4.5.3. T1 data for each participating school was compared to T2 data for the school, examining the overall differences between T1 and T2 for each country as well as differences between the two countries at each time point. The overall samples were compared as participant data for T1 and T2 was not be paired due to ethical concerns in preserving anonymity of participants given that schools elected to collect their own data. A screening question asking participants whether they had participated at T1 was a means to ensure that the same participants were included at T2.

An important consideration for the analyses and interpretation of the longitudinal results are the different response options for different variables in the questionnaire. For some of the variables in the study, T1 and T2 are directly comparable as they rely on participants indicating the current online behaviours they engage in or include participants indicating how much they agree or disagree with various statements. Since they indicate their current behaviours and perceptions at each time point, T1

and T2 can be easily compared and any potential changes over the period of one year can be easily assessed. The directly comparable variables are time spent online, online behaviours, risk perception as well as general conduct risks. For the remaining variables the time frames adolescents are asked to respond to at T1 and T2 differ because T1 asked participants whether they had ever engaged in various behaviours while T2 asked participants whether they had engaged in any behaviours in the past 12 months. These variables are sexting, contact risks, content risks, online victimisation, online perpetration as well as online risks overall. Since adolescents report on different time frames it is expected that there would be significant differences between reports of online behaviours and experiences at T1 and T2, with T2 reports most likely being significantly lower (due to the lower time frame being reported). Thus, non-significant findings between T1 and T2 for these variables are important as they suggest that the behaviour or experience occurs consistently and are, thus, issues in need of addressing. These variables thus provide an insight into the frequency with which some online experiences and behaviours occur. This distinction between variables is important for accurate interpretation of the findings and is highlighted throughout the longitudinal results chapter.

Similar to the analyses conducted in the cross-sectional study, the scores for each variable were used to assess the overall trends. Analyses included independent samples t-tests to compare time spent online, online behaviours, risk perception, online risk behaviours as well as cyberbullying victimisation and perpetration between T1 and T2 for each country. Independent samples t-tests were also conducted comparing SA and the UK at T1 and T2 to determine differences between the countries.

The second analysis examined gender and age trends for each country using Factorial ANOVA. In SA, the age variable consisted of only 2 categories, namely, 15-16 and 17-18 years at follow-up (since only two grades were examined in the participating school), while in the UK age consisted of 3 categories, namely, 13-14, 15-16 and 17-18 years at follow-up. These age categories were created by adding one year to the age of T1 participants and comparing the T1 and T2 groups in this way as this would

lead to comparisons between the same participants across the different time points. For the variables where time frames did not differ at T1 and T2, namely, time spent online, online behaviours, risk perception as well as general conduct risk items, age and gender trends were examined along with the Time variable as 2x2x2 Factorial ANOVAs in SA and 3x2x2 Factorial ANOVAs in the UK. However, no interaction effects occurred for the Time variables and thus all analyses were conducted as age x gender Factorial ANOVAs for T1 and T2 separately. This was a 2x2 Factorial ANOVA in SA and a 3x2 Factorial ANOVA in the UK. These analyses showed general age and gender trends for each time point in an effort to compare trends at T1 and T2.

As was done in the cross-sectional study, in cases where the assumption of homogeneity of variance was violated for independents samples t-tests, the adjusted t-test statistic was reported. When Factorial ANOVA was not possible due to the violation of this assumption, separate independent samples t-tests for gender in both countries as well as age in SA was conducted, while a one-way ANOVA was conducted for the age variable in the UK as it consisted of more than 2 groups. When this occurred, the adjusted t-test was reported for gender and age in SA, while the more robust Welch's statistic was reported for age in the UK. Again, these cases are clearly indicated in the results chapter and the same effect sizes were reported as in the cross-sectional study.

Apart from analysing overall scores, descriptive statistics as well as separate chi-square analyses were conducted for each variable to determine more detailed differences for the individual items in the scale between the two countries, between the two time points, as well as between the genders[22]. As with the cross-sectional study, due to the use of multiple statistical tests, medium and large effect sizes are noted throughout the results and are the main focus of the subsequent discussions.

[22] Due to the smaller sample size at follow-up and the different spread of age groups in the two countries, chi-square analyses were not conducted for age and the individual items for the two countries separately. Instead, age was examined using the overall adolescent sample (in both countries) to determine age differences for some of the individual items, while the age trends for the overall scores of the variables were used to determine the differences between the two countries.

4.7 Ethical Considerations and Research Approval

Approval for the studies was granted by the University of Buckingham's School of Science and Medicine Ethics Committee. The Western Cape Education Department in SA allowed for the research to take place in schools and the researcher was screened by the Disclosure and Barring Service (DBS) in accordance with UK law. Each individual school assessed the research topic and requirements and granted permission for the data collection to take place. Further ethical considerations with regard to the study participants are discussed in the remainder of this section.

The studies relied on informed and voluntary participation. Information sheets were distributed which provided information on the nature of each study and the data collection process and were distributed to all of the participants, including adolescents, parents and teachers. The benefits and risks of being involved in the research were described, which ensured that an informed decision was made to participate in the research or not. Further to this, it was made clear that participants reserve the right to withdraw at any point in the process without any consequence, and that the research is in no way connected to adolescents' school subjects or grades. Parents and teachers were also informed that participating in the research was not a requirement by the school. Consent forms were signed by parents for the focus group interviews and the pilot study. Opt-out methods of consent were used for the cross-sectional and longitudinal data collection, where parents were informed about the research taking place at school and allowing them to opt their child out of the research. Assent forms were completed by adolescents prior to data collection for each study.

The researcher ensured that data collection took place in the most convenient manner and time for all participants, thereby reducing any potential loss to learning time or work time. Neither the schools nor the participants were compensated in any way for participation.

Data used in the research was downloaded to the researcher's computer in a password-protected folder. Confidentiality was strictly adhered to and the names of the schools are not divulged. All names of participants or other third parties were removed from quotes in the focus group interview transcripts. Questionnaire participants were anonymous.

No negative physical, psychological, social or emotional consequences occurred as a result of participating in the research, although the researcher was prepared with referral information for this purpose. Participants were told that additional information about any of the topics covered in the questionnaire as well as the study results can be provided on request. The researcher provided e-mail contact details at the end of the survey should participants have any further questions or comments.

CHAPTER 5

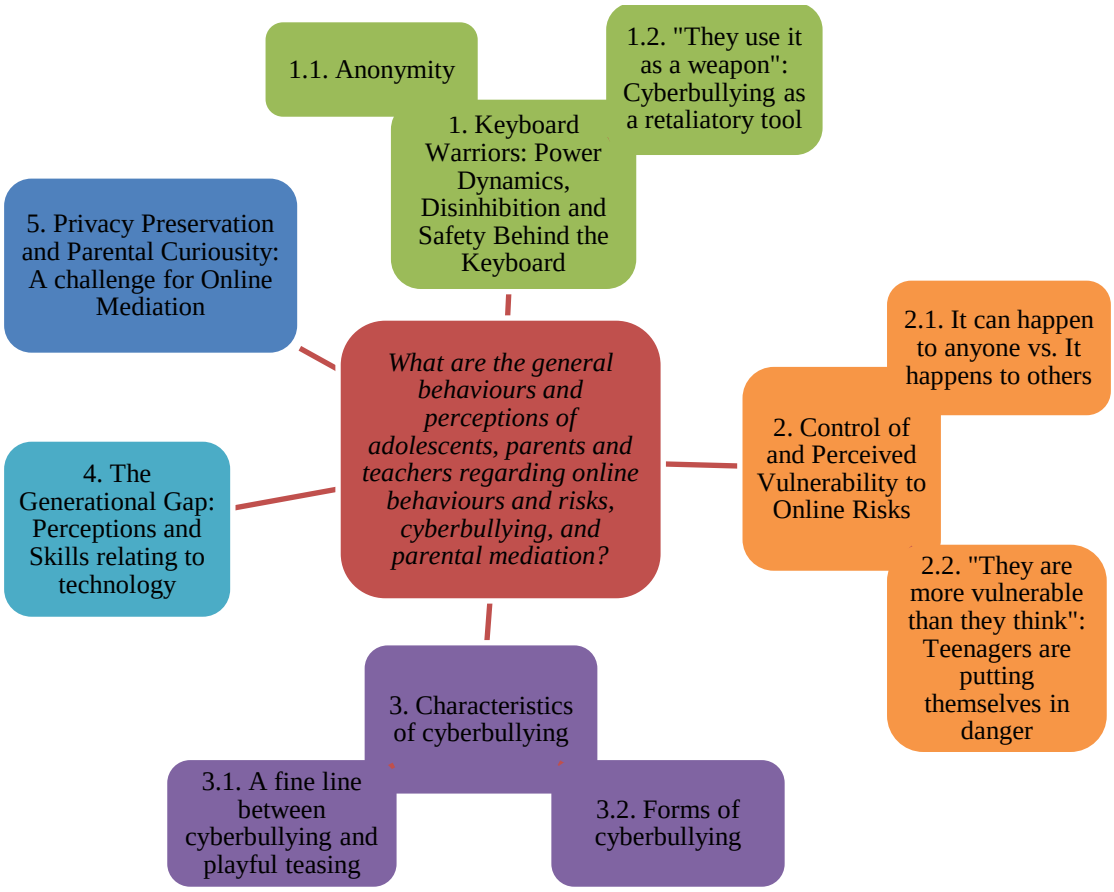
FOCUS GROUPS: RESULTS AND DISCUSSION

5.1 OVERVIEW OF THEMES

As outlined in the previous chapter, focus group interviews were conducted to gather initial data that would inform the subsequent quantitative data collection. This also provided rich data on the key issues surrounding ICTs from the perspectives of adolescents, parents and teachers, aiming to address the following research question: *What are the general behaviours and perceptions of adolescents, parents and teachers regarding online behaviours and risks, cyberbullying, and parental mediation?*. A semi-structured interview schedule was developed for this purpose. Thematic analysis was used to analyse the focus group data, uncovering emergent themes through a multiple stage process of analysis (as discussed in Chapter 4).

Data analysis of the focus group interviews resulted in the emergence of five main themes and a total of six sub-themes. A thematic network, which aims to facilitate the structuring and depiction of the themes, is presented in Figure 5.1. Each theme along with relevant sub-themes will be discussed in detail in the following sections. Only select quotes are used to illustrate the main themes, but additional supporting quotes can be found in Appendix I.

Figure 5.1: Summary of Findings: The Thematic Network



5.2 THEME 1: KEYBOARD WARRIORS: POWER DYNAMICS, DISINHIBITION AND SAFETY BEHIND THE KEYBOARD

This theme relates to participants' descriptions about online power dynamics due to a sense of safety that online users tend to feel behind the keyboard that results in disinhibition in their online behaviours. Individuals are able to engage with other online users in ways that they would not necessarily do in face-to-face interactions, since real life encounters often have a lot more at stake in terms of social consequences. In online interactions individuals can take on any number of different personas.

> *"They just might come across as a different person when in real life they could be shy on the internet they come across as confident."* - *(Male Adolescent, UK)*

This sense of safety, disinhibition and power when sitting behind the keyboard can result in disengagement with the person on the other end of the screen when using online media. This disengagement may be attributed to a lack of empathy in online encounters especially in relation to cyberbullying because individuals cannot see the reactions and emotions of the other person that they are interacting with. This was described by a number of participants across different focus group interviews.

> *"Yeah, you hide behind the keyboard. It's just a lot easier to say something. If you said those kind of things to someone's face you'd probably get punched."* - *(Male Adolescent, UK)*

> *"My husband calls them keyboard warriors. Suddenly, you're sat there and it's anonymous and you're feeling really brave and can say whatever you want."* - *(Mother, UK)*

Power dynamics were also discussed in terms of some individuals fearing the possibility of having something posted about them online. For example, one participant discussed how some adolescents, upon receiving a notification from a social networking site that they had been tagged in an image or post, stop whatever they are currently doing in order to go online and check what has been posted for fear that it might be embarrassing, which enables them to remove the content or untag themselves before many others are able to see it. The feeling of uncertainty about the kinds of online encounters that can occur were also mentioned. Thus, a power dynamic exists where one online user threatens or has the opportunity to engage in actions like public online posts.

> *"A lot of teenagers are scared of people going on and saying bad things about them or uploading pictures that they wouldn't like."* - *(Female Adolescent, SA)*

Participants also mentioned that interactions occur in an environment with no additional physical or verbal cues (such as facial expressions or tone), which means that online users can easily change the intentions behind interactions. For example, if the interaction does not have a desired outcome online it can be passed off as a joke. Thus, the online context provides a safety net in online interactions that do not exist offline.

> *"And even if you mess up you can just sort of turn it into a joke because they can't see your facial expressions or something."* - *(Female Adolescent, UK)*

5.2.1 Sub-theme: Anonymity

An important aspect to this overall theme is the ability for online users to be anonymous. This enhances the sense of safety, power and disinhibition online users may feel. Through anonymity, individuals can explore different online personas easily, which can be very different personas to their real selves (see quote below, see also Appendix I, Quote 1.1). It can also facilitate cyberbullying due to less fear of repercussions.

> *"The thing is the bully can be someone who is actually really quiet and closed down because like, when people go on the Internet they take on a totally different persona. All of a sudden you could be this massive horrible person and they would have no idea who you are because you're this quiet person normally."* - *(Female Adolescent, UK)*

Although many online programs popular among adolescents require sending and accepting requests in order to be part of the individual's online circles and to interact with them, many programs also enable anonymity, which presents a cyberbullying risk (see Appendix I, Quote 1.2). Adolescents in SA discussed how anonymity prevents one from being able to confront and "reason with the person" who has

posted negative comments about them, and how this can result in feelings of uncertainty because individuals do not know who they can trust in their offline world. This further highlights the power dynamic afforded by anonymity (see Appendix I, Quote 1.3). The aspect of trust was also reflected in the adult focus groups.

> *"Anyone can go on and just post an anonymous response. A few of my students got really upset about it, there were some really nasty things being said and they obviously didn't know who said them and that sort of made them suspicious of everybody in the school. And that's the problem, yeah. When it's probably just one nasty individual that was responsible for all of those responses, they started questioning their closest friends…." - (Female Teacher, UK)*

Apart from uncertainty and not knowing who can be trusted, anonymity was also described as resulting in more intense feelings of fear and anxiety. This was not unique to adolescents, but adults also expressed how online posts impact on the offline world when victims do not know who the perpetrator is or how serious the intentions are behind what they have posted (see Appendix I, Quote 1.4).

In addition to anonymity facilitating cyberbullying, participants also noted that it is important in relation to other online risks such as contact with strangers. Online strangers can easily conceal their true identities. Individuals can interact with strangers and form a trusting relationship over time without being able to verify that the person's online persona is real. Parents also expressed concerns about online strangers and the dangers of cybergrooming.

> *"Mens kan vreemde mense ontmoet en jy weet nie wie hulle is nie, nie rêrig nie. [Translation: One can meet strangers and you don't know who they are, not really]." - (Male Adolescent, SA)*

"I think the dangers of these chat things, MXit[23] and stuff, is that you don't know the people who you're talking to but yet you're interacting with them and giving them all this information, because this child is 14, she doesn't know that this person is actually grooming me." - *(Mother, SA)*

5.2.2: Sub-theme: Cyberbullying as a Retaliatory Tool

Another aspect to power, disinhibition and a sense of safety behind the keyboard is that cyberbullying can act as a retaliatory tool. Individuals may retaliate against one another in online spaces because they feel powerful behind the safety of the keyboard. Anonymity is tied closely to the retaliatory dimension to cyberbullying because it reduces the fear of consequences, which act as a behavioural control.

Female adolescents in SA stated that there are clear motives in cyberbullying. The motive may vary between simply wanting to get a reaction out of someone or as occurring in retaliation to offline dynamics. According to the adolescent participants, the perpetrator would choose to act this way in order to "protect themselves", which reflects the safety element. Perpetrators might also choose to expose others online or to retaliate publicly using online media in order to "get the attention of more people siding with them". This identifies cyberbullying interactions as being a possible means of gaining social support from peers (see Appendix I, Quote 1.5).

"You could also just put it on Facebook so everyone can see it then maybe the person who wrote it will feel embarrassed." - *(Female Adolescent, UK)*

Teachers also mentioned that retaliation in online spaces can occur as a result of anger or frustration to offline encounters (see Appendix I, Quotes 1.6 and 1.7). They also

[23] MXit, pronounced 'mix it', is a South African instant messaging program that can be downloaded to mobile phones. Existing contacts can be added but there are also chat rooms where strangers can meet and talk to each other.

discussed how retaliation could occur through making claims of cyberbullying in order to get someone into trouble.

> *Male Teacher UK "I wonder if students sometimes use cyberbullying as sort of to their advantage because I had a girl speak to me last week who claimed that someone in my form had been on Facebook calling her all sorts of names. So I said, ok, bring me a printout, let me see and I will deal with it. And I spoke to her yesterday and she was like 'Oh, I can't find it now, it's not on there'. So part of me thinks: Do students use it maybe to claim they're being bullied? …And she came to me, it wasn't that I caught her crying, she came to me and said 'I am being cyberbullied'."*
>
> *Female Teacher UK: "Well, they're using it as a weapon, aren't they?"*

This theme captures the nature of online communication, where disinhibition and the different way in which power dynamics are enacted online might lead some individuals to act in ways that they would not otherwise do offline. Potential for anonymity plays a major part in this. Teachers also discussed the potential to use cyberbullying as a means of retaliating to an offline encounter or using claims of cyberbullying to get back at others. The following theme discusses online risk perception of adolescents and adult perceptions relating to this.

5.3 THEME 2: CONTROL AND PERCEIVED VULNERABILITY TO ONLINE RISKS

This theme describes adolescents' perceived vulnerability to online risks and how controllable they perceive the risks to be compared to adults. Perceived vulnerability differed with adolescents because they largely felt that the risks were lower for themselves than for a typical teenager their age. Adults, on the other hand, attributed online risks to carelessness and a lack of understanding among adolescents. These findings are discussed in more detail in the sub-themes that follow.

5.3.1 Sub-theme: It can happen to anyone vs. It happens to others

This sub-theme captures adolescents' perceptions that, on the one hand, online risks such as cyberbullying can happen to anyone. Therefore, everyone is vulnerable to online risks to some extent and this can create a sense of anxiety in that victimisation may not be dependent on one's own actions, thereby making online risks less controllable and much more random. For example, as mentioned by a female adolescent in SA: "Anyone can cyberbully anyone, it just depends on motive".

On the other hand and, often at the same time, adolescents attributed cyberbullying to certain characteristics of the individual that made them more vulnerable. These characteristics included (i) individual aspects such as having a low self-esteem, being shy, and being misunderstood, (ii) experiences such as having been bullied in real life, and (iii) social aspects such as popularity (more specifically, both being popular and unpopular among peers seemed to be a risk factor discussed by adolescents).

> *"In my opinion, it could be anyone but usually it seems to be like lonely people, misunderstood, or people who got bullied in real life. It's one of those."* - *(Female Adolescent, UK)*

> *"Very insecure or shy people or like really popular people that no one likes secretly."* - *(Male Adolescent, UK)*

> *"People with low self esteem are like easy targets for getting a reaction out of them."* - *(Female Adolescent, UK)*

Some of the participants had an optimistic bias about personally being at risk. In these cases the risks were seen as being external and not on account of individual actions. For example, participants thought that others "don't think it through", that "some people are just so ignorant about it", or that they feel "the need to do something

stupid" (see Appendix I, Quotes 2.1 – 2.3). Thus, the perception is that those who engage in risky behaviours, those who are not careful, and those who do not think of the consequences of their behaviours are at risk for online victimisation. These views can also serve as a means of adolescents distancing themselves from the online risk behaviours taken by a typical teenager their age, thereby making online victimisation less personally relevant.

5.3.2 Sub-theme: "They are more vulnerable than they think": Teenagers are putting themselves in danger

In the same way that adolescents believed that others were placing themselves in danger through their carelessness and ignorance, adults believed that teenagers were putting themselves in danger by not understanding the potential consequences of their online behaviours. Adults believed that children do not accurately acknowledge the risks for themselves and that, although they appear to understand the risks in their physical environment such as talking to strangers, they are far less aware of risks to their reputation when posting online. Thus, their risk perception often does not carry over into the online space and adolescents were positioned as "quite naïve about how insecure it all is" and the long-term consequences of interactions and posts.

> *"Mine don't [understand the risks]… they've had the stranger danger talk from school, from me, from everyone but they don't see risks in things like risks to their reputation - the fact that in future their employer might look back on it and see these things. And even on Facebook, liking something on Facebook inappropriate automatically links them to that."* - *(Mother, UK)*

In general, adults discussed that adolescents were highly vulnerable to online risks but that they do not fully understand or appreciate these risks.

"I think there's a difference between their perception and reality. I think they think they're not really vulnerable to it and it can't happen to them and they [think they] know the risks and they understand what happens, but actually I wonder if that is true. Maybe they sort of go on and say 'Oh that's ridiculous, that could never happen to me', but actually maybe they are more vulnerable than they think." **-** *(Male Teacher, UK)*

Like adolescents, adults also mentioned how children accept strangers as contacts on social media because having a high number of friends in their circle can act as a form of status among peers and that this can lead to negative online experiences (see Appendix I, Quotes 2.4 and 2.5). Similar to adolescents, adults also mentioned the posting of pictures as being highly risky. They believed that adolescents do not understand that images can spread and be used as a cyberbullying tool (see quote below), or that a screenshot of comments or posts makes them vulnerable (see Appendix I , Quote 2.6).

"It's interesting this whole cyberbullying thing…what people put themselves up for on some of those sites. Like Facebook, putting up ridiculous pictures of themselves and then wonder why they get a very bad response. I think we need to do some work with students …in terms of what's appropriate…" **-** *(Female Teacher, UK)*

This theme highlights some adolescents' views that anyone is vulnerable to online risks and that these experiences are less controllable through one's actions, while others indicated that individual characteristics, social aspects and traditional bullying experiences put individuals at greater risk for cyberaggression. In contrast, adult participants generally noted that adolescents fail to appreciate potential online risks and place themselves in danger through risky actions. The following theme captures discussions relating to definitions and understanding of cyberbullying.

5.4. THEME 3: CHARACTERISTICS OF CYBERBULLYING

Defining cyberbullying can be a difficult task (as discussed in the literature review) and participants expressed that it varies between encounters. Aspects discussed in previous themes, such as anonymity, were said to exacerbate negative experiences because one does not know where the attack is coming from. Participants also discussed how cyberbullying, which is not reliant on physical proximity, can occur at any time and is particularly distressing when it occurs continuously. This theme captures some of the characteristics of cyberbullying as discussed by participants and outlines some cyberbullying scenarios that participants have experienced or witnessed.

5.4.1 Sub-theme: A fine line between cyberbullying and playful teasing

Although various programs can lead to negative encounters, particularly those that are anonymous, adolescents describe the entertainment value of these programs, which accounts for their popularity among this demographic. Adolescents explained that, while things can go wrong in using these programs, it is dependent to a large extent on the individual's interpretation of the encounters. As such, there seems to be a fine line between what is considered to be cyberbullying and what is deemed playful online teasing. Thus, one individual may take comments badly and another might laugh (see Appendix I, Quote 3.1). The ability to not take online encounters seriously was mentioned several times across focus groups. Again, individual characteristics were mentioned, with "people that are insecure" being more vulnerable (see quote below) as well as individuals with existing emotional problems such as depression (see Appendix I, Quote 3.2).

> *"For most people they don't mind but there's a lot of people that are insecure so they take it to heart."* - *(Male Adolescent, UK)*

In large part this occurs because there are a lack of verbal and physical cues such as tone and body language. Moreover, since individuals cannot see the effect that their

comments have on others as a result of the absence of these additional cues, these interactions can quickly switch to something more serious. Adults described how online communication can be ambiguous in its meaning as a result of a lack of "intonation" and the fact that the "context is lost" in online encounters (for additional quote see Appendix I, Quote 3.3).

Adults questioned the definition of cyberbullying and how far an online encounter would need to go in order to be considered cyberbullying. A parent in the UK said that she "doesn't necessarily see whether [adolescents] recognise some of the behaviours as bullying", indicating a difference between adult and adolescent perceptions on the issue. Another parent suggested that cyberbullying was not recognised by adolescents or by adults and that it may be a case that incidents are seen as cyberbullying only after a serious outcome.

> *"I think very much of what you say, what they perceive as bullying is perhaps very different to perhaps what other people… I also wonder if things are seen as bullying after an outcome, so high profile cases where kids who are suicidal, or tried etcetera. If it hadn't happened would it have been seen as bullying? Or is it seen as bullying because of what happened? Does that make sense? You know, how the outcome changes adults' perceptions of the behaviour."* - *(Mother, UK)*

The issue of defining cyberbullying was discussed, with a particular mention of the aspect of repetition. For some adolescents, the persistent nature of the online encounters was important in conceptualising an online behaviour as cyberbullying and viewing it as serious (see Appendix I, Quotes 3.4 and 3.5). A teacher in the UK also highlighted the view that cyberbullying is a sustained act.

> *"Well you know, in terms of, if a kid comes to you tomorrow and tells you 'I'm being bullied on Facebook', I'd think 'are you really being bullied or has someone made a couple of comments, what's bullying in the first place? There's a lot of this 'I am*

being bullied' and it's like one comment and that's not… I perceive bullying to be something that's sustained and long term and it can involve one person or more than one person. I mean we need to get a handle and they need to be realistic about that. If they're not happy about what someone's said, your choice, press the delete button." - *(Female Teacher, UK)*

However, others disagreed with this view, stating that one derogatory or hurtful comment should suffice for the definition of cyberbullying. This highlights the current debates surrounding the definition of cyberbullying and how this acts as a barrier to addressing the issue effectively in the school context.

Male Teacher UK: "But if you make a derogatory comment, if you insult someone, why does it need to be more than once for it to be defined as cyberbullying?... If someone makes a comment and that comment is meant to hurt, why is that not…"

Female Teacher UK: "This is the other discussion isn't it? Kids need to tell us what they consider to be bullying."

In terms of persistence, parents also expressed concerns about the fact that online communication can happen at any time of day. This is an important aspect to online communication and, thus, an important characteristic of cyberbullying.

Mother 1 UK: "And it's the immediacy sort of isn't it? It's on all the time."

Mother 2 UK: "Yes, it's constant, wherever you are. At school it's until 3.30 whereas online they can do it 24/7."

5.4.2 Sub-theme: Forms of cyberbullying

This sub-theme describes perspectives on the different forms of cyberbullying and examples of how these scenarios play out in online spaces, most of which were from

the participants' personal experiences. These examples of cyberbullying scenarios are grouped under different headings for ease of understanding.

- *Images and Video Clips*

Participants believed that posting or commenting on pictures and video clips is a major form of cyberbullying. Individuals can receive harsh or insulting comments on their posted pictures or their private images can be distributed to a wider audience, both of which can cause distress.

> Female Adolescent 1 UK: *"Or people can like, I don't know, take a picture of themselves in like revealing clothing."*
>
> Female Adolescent 2 UK: *[Laughs] "Revealing clothing? Or just naked!"*
>
> Female Adolescent 3 UK): *"Yeah. And then they send it and they (the other person) sends it to like two other people and they don't realise that that person now has a picture of you on their phone and they don't know what they can do with it. They can do whatever they want with it."*

This was described by both adolescents and adults (see Appendix I, Quotes 3.6 – 3.8). This discussion was also extended to recordings of video clips of a sexual nature (see quote below) or video clips of fights or arguments (see Appendix I, Quote 3.9). These video clips are posted online or distributed.

> *"A couple of years ago there was a girl who is still at this school who had been to a party and had been filmed, you know, having sex with somebody and that had been posted. But I mean that spread like wildfire and made it to other schools in the area." - (Female Teacher, SA)*

- *Rumours*

Another form of cyberbullying was the spreading of rumours, which included adolescents spreading rumours about each other or about school staff. Apart from the impact on adolescents, allegations made about adults in the school system can have serious repercussions for the individual's reputation and points to the impact that cyberbullying can also have on adults in this context.

> *"They were all saying she had an affair with one of the teachers or something like that… And they spread rumours about our principal on there also."* - *(Female Adolescent, SA)*

> *"There was a comment about a member of staff and this particular girl had commented about a member of staff having done something."* - *(Female Teacher, UK)*

- *Impersonation or Hacking*

Individuals might unintentionally leave their social network profiles logged in or temporarily leave their mobile phone unattended, allowing someone else an opportunity to post on their behalf. This post can be viewed by all of the individual's contacts and appears as if they wrote it. On Facebook in particular, this is referred to as 'fraping'. Participants saw this as a form of cyberbullying, particularly when done with malicious intent.

> *"I've discovered that hacking has actually become very popular but to the point where my son has this girl that he likes… and there was a posting that was made about this girl and I was very angry with him and I said 'how can you put that on your phone?' and he said 'mom...'... his class had gone out and they were at the bowling there and he had just put his phone down because it was his turn to bowl and*

when he came back somebody had sent it from his phone. And I mean, it's terrible that you actually have to watch your phone all the time." - (Female Teacher, SA)[24]

- *Interactive Online Games*

Interactive online gaming was another platform mentioned specifically in relation to cyberbullying as well as a contact risk for cybergrooming.

"If you get Xbox Online people do talk to you and they can give you hate. They can give you verbal hate." - (Female Adolescent, UK)

"There are games where you can link up with your friends and both of you can play the same game and you know, that could be a grooming thing. They can be groomed." - (Mother, UK)

- *Exclusion*

Being excluded from an online in-group was also mentioned as a form of cyberbullying, particularly by adult participants.

Mother 1 UK: "I think that all these sorts of bullying that can happen in real life can happen, sort of like the exclusion, the leaving out, the name-calling, all of them."

Mother 2 UK: "Or that blocking one, 'everybody block someone'."

Mother 1 UK: "That's so mean, isn't it?"

[24] Although teachers were specifically requested to discuss the issues in the focus groups from the perspectives of teachers, at times they also added a parent perspective (as seen in the current example). As this is an issue that affects both the home and school context, it can be difficult to separate these roles when discussing the issues (this is also the case for a quote on page 132).

This theme captured some of the definitional debates that have also been discussed in the literature, in particular relating to repetition and intentionality and mention of some unique features in the online context such as the possibility of occurring at any time of day or night. Participants' understandings of the main forms of cyberbullying were highlighted. Thus far, the differences in adolescent and adult perceptions relating to online risks have been noted. The following theme captures participants' perceptions relating to the differences in knowledge and use of ICTs between the two generations.

5.5 THEME 4: THE GENERATIONAL GAP: PERCEPTIONS AND SKILLS RELATING TO TECHNOLOGY

This theme outlines the generational gap that exists in relation to ICTs between the adolescent and adult generations. It captures the participants' perceptions about these differences and how adolescents and adults use and understand online spaces very differently. Apart from general perceptions about these differences, this theme also shows that technological skills vary significantly between these two generations. This gap is important for conceptualising the issue of cyberbullying and online risks for adolescents, and particularly when thinking about the challenges for mediation (discussed in Theme 5, section 5.6).

Participants reflected on the fact that adults and adolescents see and experience the internet very differently and that, because of this, adults tend to be removed from children's online experiences. The quote below captures a range of issues that will be discussed under this theme, namely, (i) the generational gap in relation to technological skills and knowledge; (ii) that children are much more immersed in online media than adults and; (iii) that this knowledge gap makes it difficult for parents to keep up and ultimately affects their ability to monitor their child's online media use effectively (for additional quotes see Appendix I, Quotes 4.1- 4.2).

> *"At a certain generational gap parents are going to be much less technologically aware than their children. They'll have difficulty monitoring what they're doing*

online, especially just that knowledge gap. Kids now are raised on it, they're much more familiar with it, whereas parents don't have that constant, everyday, what's the word I'm looking for [pause] exposure to it. Because kids are exposed to it every day they know the new websites, they know the new this and the new that, they know the new trends, it happens like that [snaps finger], whereas parents take a lot longer to catch on." - (Male Teacher, UK)

Another aspect indicating how different the online world is for adolescents and parents is the use of language in online communication. Adolescents use shorthand forms of language when communicating with each other online, which can almost be seen as a form of code (see quote below, see also Appendix I, Quote 4.3).

"They know how to write in code and we don't know the language." - (Female Teacher, SA)

Parents see themselves as the "generation before they got hit" with the technology. From the discussions with adults, it was very clear that they believed that the evolution of technology has changed the dynamic in their children's generation and they reflected on the social disconnection as a result of this (see Appendix I, Quotes 4.4 – 4.6). As a result of children's immersion into the online world, adults commented that children are facing a lot of pressure to keep up with their peers in relation to technology and that this also puts pressure on parents (see quote below, see also Appendix I, Quotes 4.7 and 4.8).

"They don't want to be different, do they? So they want what their mates have got and that brings up pressure in its own, it puts pressure on parents." - (Mother, UK)

Adults also believed that there was pressure for children to keep up with the programs that are used by their peers and the current peer norms. Adults mentioned the "status" adolescents get from the acknowledgement of their posts through Facebook likes, for

example, or for the number of friends or followers they have on social media, which is unlike the way parents grew up.

> *"But it's things that all of a sudden become a craze, don't they? And then it's 'Oh, I'm bored of that now'. [Daughter's name deleted] went on Facebook for a while, then got bored, then went bonkers on Twitter. 'I've got so many followers, I've got this, I've made this comment, I've got so many likes on this' blablabla. And it's that sort of thing, they get some sort of kudos or status from what they're on and what they put on and what people comment back or whether people acknowledge it." - (Female Teacher, UK)*

> *"But even this sort of competition about how many friends each one has and all of that kind of, that adds another dimension to friendship and pressure, doesn't it… that, perhaps, we as children didn't have." - (Mother, UK)*

Adolescents and adults were also specifically asked about their own and each other's technological skills and knowledge. This is when the generational gap became most evident. The interaction that follows reflects adolescents' perceptions that adults generally are not aware of how to use most technologies. Several important aspects are captured in this interaction, namely, (i) that adults tend to ask adolescents to show them how to use online media which provides evidence for the fact that adults are less knowledgeable about the technology; (ii) that, when adults do know how to use the programs, adolescents are "careful" about the things they post and what will be visible to the adults (see Theme 5 regarding privacy preservation, section 5.6); (iii) that adolescents view themselves as being the experts and as being more "modernised" which is evident in that, when an adult does know how to use certain programs, that they "might as well be a teenager", which links technological skills to adolescent identity. Linked to this is the notion that parents only use a very small proportion of programs that adolescents use because they "don't seem interested", and with some programs that are popular with teenagers "there's no point" for the adults

perhaps because their interests vary. This also shows the clear differences in the way certain programs and online media are labelled as adolescent spaces.

> *Interviewer: "So speaking of adults, do you think your parents know how to use these programs you listed?"*
>
> *Several Adolescents UK: [Group Laugher] "No!"*
>
> *Female Adolescent 1 UK "My mom knows how to use like one and that's it. Like she uses Facebook but she still asks me and my sister how to use it." [Laughter]*
>
> *Female Adolescent 2 UK: "My mom still doesn't know how to post photos."*
>
> *Male Adolescent 1 UK "My grandparents have Facebook. [Group laughs]. So they know how to use it but I'm being careful about the stuff I put up. I limit it. So Facebook's probably the only one of them apart from YouTube that parents use because the rest they don't seem interested in. Like AskFM, there's no point for them."*
>
> *Interviewer: "So then it's safe to say that teenagers are the experts?"*
>
> *Several Adolescents UK: "Yes!"*
>
> *Female Adolescent 1 UK "Because they're more modernised."*
>
> *Female Adolescent 2 UK: "It depends what kind of adult it is because my parents are clueless, especially my mum she's clueless with internet and technology. But my uncle is like really good with it, he might as well be a teenager."*

This was also found among adolescents in SA.

> *"My mommy's also on Facebook but she's like so delayed [Group laughs]." - (Female Adolescent, SA)*

> *"We have more intelligence. We know more about social networks than they do." - (Female Adolescent, SA)*

A teacher stated that some parents were unaware of how technologically skilled their children are, assuming that their children are "innocent" and do not engage in online behaviours the way other teenagers do. This teacher believed this was a common misconception among parents.

> *"They're not aware of their own child's techno-savvy because they always assume 'my child is innocent and they don't know how' but they know exactly how to do something when we need to."* - *(Female Teacher, SA)*

While parents generally thought that their technological skills were lower compared to their child (see Appendix I, Quotes 4.9 and 4.10), they stressed the importance of educating themselves about online media and to keep up with the new digital generation.

> *"They know all these programs and we need to equip ourselves with this stuff so we know what's happening."* - *(Mother, SA)*

Some parents also described their attempts at keeping "on top of what is going on" (see Appendix I, Quote 4.11), but despite this, others indicated that there will always be programs that only children know about making it difficult to protect children from online risks.

All of the aspects discussed thus far provide evidence for the generational gap between adults and adolescents when it comes to online media. A further reflection of this is when asking the participants directly about who they would speak to when faced with online dangers. Adolescents were reluctant to speak to adults about their online experiences, perhaps because they did not think parents would understand. Adolescents discussed how parents are likely to either overreact or underreact and

that this lack of understanding of online interactions keeps them from talking to their parents (see quotes below, see also Appendix I, Quote 4.12).

> *"I think that things that usually have to do with teenagers, adults don't really understand. They can say they understand but they don't actually understand what they're physically or mentally going through. Like if a parent says 'Oh yeah, you're fine, don't worry about it, just don't listen to it' but they don't realise that that child might actually be seriously taking it to heart and I think that in some cases it can be exaggerated but to teenagers themselves it's a really big deal."* - *(Female Adolescent, UK)*

> *"Sometimes you want to let your family know about this but you're so scared they're going to skel [Translation: shout], 'Why must you skel [Translation: shout]? It's part of growing up, it's part of life, you did the exact same thing'."* - *(Female Adolescent, SA)*

For this reason, adolescents said that they would most likely talk to their friends about their online experiences. This provides evidence that parents are largely removed from adolescent online experiences. Being removed from children's online experiences also means that parents tend to believe that their children are not engaging in online risk behaviours or cyberbullying and find out only once it becomes a bigger issue, which is often surprising to them.

> *"And her mommy couldn't help her with that because she couldn't see what was happening. Also from what happens at school and stuff, a lot of things happen at school that get put on these sites and then children's parents don't know about it. Then eventually it becomes such a big issue at school that when the parent actually finds out about it, it's like shocking because 'my child won't do something like that' but then there's proof. There's proof that this happened and here's proof, so I don't think that people, like parents, know exactly what is happening."* - *(Female Adolescent, SA)*

Teachers also rarely heard about experiences of cyberbullying, suggesting that these experiences are hidden from adults unless they become very serious and affect the school context. This makes it difficult for adults to intervene appropriately and to prevent situations from escalating (see quote below, see also Appendix I, Quote 4.13).

> *"I'm sure it happens but they don't always report it to us as staff, it's only when it becomes extremely upsetting once they've already said to a parent, that will then come back to us depending on how many people are involved."* - *(Female Teacher, UK)*

This theme discussed perceptions relating to how adolescents and adults use ICTs differently and have differing technological skills, where adolescents are more immersed in ICTs and often assist their parents in online tasks. The differences in knowledge and use of ICTs were noted as a reason for adolescents often not choosing to disclose their online risk experiences to parents. These generational differences also have an impact on the level of mediation parents are able to effectively provide, which is discussed in the following theme.

5.6 THEME 5: PRIVACY PRESERVATION AND PARENTAL CURIOSITY: A CHALLENGE FOR ONLINE MEDIATION

This theme discusses the effort parents make to set rules and monitor their child's use of online media against the backdrop of adolescents' desire for independence and privacy, which results in actions to hide their online behaviours from adults. This, coupled with the generational gap discussed in theme 4, poses a serious challenge for online mediation strategies. This theme discusses this issue by (i) describing some of the rules that are in place to mediate children's online behaviours and the differences in the perceptions of these rules between adults and adolescents; (ii) adolescents' reports of the actions they take to preserve their online privacy from adults, and finally; (iii) outlining the difficulty that this poses for online mediation as discussed by the adult participants.

Parents were aware that they could not prevent their children from using technology. One parent in the UK stated that: "You can't really deprive them because then they'll want to do it more, won't they?". Thus, parents believe that they need to find a common ground and find solutions to monitoring online media use. Parents' mediation strategies were mostly based on setting rules in relation to access to mobile phones, both in terms of the age at which their children are allowed to access technology as well as the times when they can access it. Many parents also had their children as online contacts so that they could monitor their posts. Some of the teachers, who are also parents, also discussed their parenting strategies. Parents acknowledged that strategies were dependent on the age of their child and that the same strategies would not be appropriate for older children. The interaction below highlights this and shows the extent to which parenting strategies can vary. Overall, findings showed that parents tended to rely on restrictive mediation strategies as well as monitoring behaviours (see also Appendix I, Quote 5.1 – 5.5).

> <u>Female Teacher 1 SA:</u> *"In our house we have a policy that none of the phones have passwords, you're not allowed to have passwords on your phone and anybody can pick up any phone at any time. So they can pick up my phone, I can pick up their phone, that's just how we do it… Their phones sleep in our room because I don't want them on their phones throughout the night. But it's because of their age and they're still young so I can put these things in place. I know I'm not going to be able to do that for very much longer."*
>
> <u>Female Teacher 2 SA:</u>*"My daughter is 17 years old now and I still get the phone at night and take it to my room unless she's writing a test the following day and her friends are tweeting her or Facebooking about the questions and answers and whatnot, then it's fine. But I think she's responsible enough and I trust her enough. And at night they come by themselves, my son is 13 and they just leave the phones in my room and they're gone and they know the rules of the house and it's not like a big deal you know?*
>
> *…[some lines omitted]…*

> *Female Teacher 3 SA:* *"I do not touch my kids' phone at all. My daughter has a parental lock on because she's in grade 8. She uses my email address and I do get to see what she's communicating and my son also uses my email address. I don't touch his phone, I don't ask about that phone."*

Adults were very vocal about the challenges of parenting adolescents in the digital age, stating that it is very different to their own parents' approaches. Parents expressed that they need to allow adolescents their space and respect their privacy but that this can be challenging when they are curious about what their children are doing online.

> *"When I was a teenager my mother would be like 'If I say something, it's like that'. Now my child is like 'mommy, but can't I do it like that?' so it's challenging for me at this stage. The other [younger] one I can still mould or whatever but this one is a little bit on her own. But I need to, as my husband also said, you need to allow her space but I still want to know in that little space [laughter]. I give them that freedom and it's what they make of that freedom. I can't tell her don't join that friends, it's her decision."* - *(Mother, SA)*

Parents also stated that they could not fully control their child's internet use because of the widespread access to technology in different settings. Therefore, even if rules are strict in the home, the child can access programs and technologies elsewhere.

> *"I feel it's unrealistic as a parent to say that I can fully ever control their internet use… With the access they have everywhere I think it's more instilling, being confident that your child knows where the barriers and boundaries are."* - *(Mother, UK)*

Parents also expressed the importance of talking to children openly and communicating about online media, which is defined as active mediation. Active

mediation was closely linked to trusting children to make their own choices and to have an open relationship with them regarding technology (see quote below, also see Appendix I, Quote 5.6 and 5.7).

> *"I think in terms of that statement of having rules and regulations and being strict as a parent knowing that to some extent you can sort of help your child. When you were younger you took the liberty. Although your parents had certain restrictions and boundaries for you, you still went out and you discovered things on your own. So I think in actual fact a parent needs to guide the child instead of just taking the cellphone and saying nothing. Sit down with the child, communicate with the child, explain the dangers around the cellphone."* - *(Mother, SA)*

Some parents see this approach as being a general parenting approach applying to all aspects of the child's development and extending to the online space and that the "same moral code applies". Adults were also aware that some parents give their children more of a "free rein" at younger ages and that it comes down to "general parenting". Thus, online mediation was seen as an extension of general parenting approaches and that technology serves as a replacement for quality time with children for some parents and that this lack of engagement with children places them at risk (see Appendix I, Quote 5.8 – 5.10).

When talking to teachers about mediation at school and any policies that were in place to deal with online media use and cyberbullying, few teachers reported any concrete policies or actions that were in place at their school.

> *"Per se, we don't have a policy. We don't have a cyberbullying policy, but I know my friends who are deputies at other schools they are busy with policies… So it is in awareness already, so they are working on policies but we haven't really started on anything as yet."* - *(Female Teacher, SA)*

> *"If someone comes to me in school, I'm not sure I know what to do and I'm sure I'd pass it on but I will probably not deal with it. It'll be passed to the heads or teachers responsible for those types of things. The thing is there might be a procedure but I might just not be clear on exactly what the steps are."* - *(Male Teacher, UK)*

In SA specifically, teachers explained that their school faced bigger social problems such as drug use and violence, which takes precedence over online behaviours. Thus, teachers believed that cyberbullying was more of an issue in affluent schools where there was higher access to technology. Although in reality children in less affluent schools do not experience less cyberbullying and are not less vulnerable, less attention is often placed on the issue as a result of dealing with problems such as carrying of weapons and substance use (see Appendix I, Quote 5.11). In this case it was clear that teachers did not know what to do or what policies could be put into place to begin addressing the issue of cyberbullying.

While many teachers were not aware of specific policies regarding online media at their school, some teachers mentioned examples of incidents that indicated that schools were taking some actions to deal with online situations even if policies were unclear.

> *"Anyone that had put a comment on the fight that had been video'd was actually suspended for a day, so there's a kind of strict, very stringent rules in place there for anything of that sort to try to deter students."* - *(Male Teacher, UK)*

Teachers also discussed the need for emphasising internet etiquette and teaching adolescents that online interactions are an extension of the ways one would behave in face-to-face settings.

"I think the thing is how to teach them about cyberbullying, how do we instil in them 'we need to have respect for each other' whether it's Facebook, whether it's written, that's the part, that's the part we need to teach them." - *(Female Teacher, SA)*

"We need to put policies in place and teach our kids about mutual respect." - *(Female Teacher, SA)*

Teachers believed that adolescents would continue to use ICTs regardless of adult interventions as a result of higher technical knowledge. This links to theme 4 in that children may be reluctant to accept adults' opinions and information regarding safety when they see themselves as the experts of technology.

"You're between a rock and a hard place, you try and educate kids, you try and give them talks about it, they know what they're doing on it and, at the end of the day, they will carry on doing it no matter what you tell them." - *(Male Teacher, UK)*

Teachers also expressed frustration when parents expected them to deal with online issues, stating that parents needed to take more responsibility for cyberbullying incidents that occur outside of school (see Appendix I, Quote 5.12 and 5.13). One teacher also stated that incidents that happen outside of school are "not for us to deal with", thus there was some confusion about where they were required to act and where parents were required to act when it comes to online behaviours. This highlights the need for a more integrated approach between teachers and parents to work together in relation to online safety and online behaviours, which was expressed by several teachers (see Appendix I, Quote 5.14 – 5.16).

Adolescents were asked about mediation at home and at school and mentioned some of the same strategies mentioned by parents. For example, adolescents also spoke about monitoring where they had their parents as social media contacts. In these cases

children were cautious about their posts and the content of their online profiles (see quote below, see also Appendix I, Quote 5.17).

> *"My mom has me on Facebook so she checks up but I'm careful about what I put up." - (Male Adolescent, UK)*

In other cases children were allowed to make their own decisions about their use of technology.

> *"My parents think I'm old enough to pretty much do whatever." - (Female Adolescent, UK)*

> *"My parents are like, I've been to school all day so when I get home they allow me to do whatever I want so I can just chill out for a while. They understand that I've put the effort in at school so I go on the Wi-Fi. I get to chat." - (Male Adolescent, UK)*

In general, adolescents expressed a lot more freedom in the way they use technology and reported fewer rules than adults (see Appendix I, Quote 5.18). Thus, parents may not always be implementing rules effectively.

Adolescents clearly valued their online privacy and were fairly open about the strategies they use to preserve their online privacy from adults. Adolescents carefully screened the content that adults were able to view by limiting specific Facebook posts, or simply refusing to add them as contacts in the first place. Locking their mobile phones or switching screens were also ways to keep their online behaviours private.

Female Adolescent UK: "I changed my posts on Facebook so they can't see them."

Male Adolescent UK: "Yeah, me too because Facebook has filters so you can change it for specific people."

Female Adolescent UK: "…Sometimes people avoid their parents seeing anything at all costs. Like with your phone you just kind of lock the screen whenever they come near you or you switch it to something that you want them to see."

Female Adolescent 1 SA: "Like, number one, you don't add your mommy and your daddy because you want to be with your friends and you want to make status updatus [group laughs] and you want to like upload photos and stuff.

…[some lines omitted]…

Female Adolescent 2 SA: "But you can make groups, you can choose, you can choose who you want to see the photo and not."

…[some lines omitted]…

Female Adolescent 3 SA: "And also your parents like to go through your phone so you put on a password."

Adolescents suggested that parents are very curious about their use of online media and take the opportunities given to them to gain an insight into adolescents' worlds, which adolescents were aware of (see Appendix I, Quote 5.19). Some parents also admitted that they discreetly made attempts to monitor their child whenever they had the chance. Adolescents said they filtered online content to a certain extent but still allowed parents to view some of it so that they would feel included and to satisfy their desire to know about their child's online behaviours (see quote on next page). Similarly, some adolescents had their family as contacts on some programs and not on others, which enables them to control what their parents see while still being able to express themselves to their friends using alternative programs (see Appendix I, Quote 5.20).

"I had this special memory card so everything I wanted to show my mommy I would put on the one memory card because I know she will go through everything and that way it's like 'Fine, you can go through everything'. Otherwise I must explain this is this and that is that, that happened there, oh I wasn't there I just got the picture." - (Female Adolescent, SA)

Adolescents also often deleted messages in case their parents read them, which was a popular privacy preservation action for adolescents in both countries.

"Oh yes, I'm like delete, delete, delete. You're not going to see that because then they ask you questions. 'Ummm, that was not me, that was my doppelgänger, my twin that miraculously fell from the sky.' [Group laughs]." - (Female Adolescent, SA)

"Sometimes my mom uses my phone for an alarm so before I give her the phone I must delete all the things I don't want her to see." - (Female Adolescent, SA)

Teachers were not surprised by these privacy preservation actions and one teacher in the UK stated that: "It's that privacy issue, kids want to be their own person and don't want their parents poking". Parents were also not ignorant about this. In fact, they had very clear ideas about what privacy preservation tactics might be implemented, including deleting messages and setting up alternative social networking accounts. To them this was a further challenge to effective mediation strategies.

"You think you know your child. Nowadays, the children of today they will surprise you because you think you can read and then they delete that before they get home because mommy is wakker. [Literal translation: awake; Contextual translation: aware]." - (Mother, SA)

"I'm very aware that the likelihood is that they have probably set up secret accounts… They probably have a Facebook for mummy and Facebook for not-mummy [Group laughs]… It's something I would've done." - *(Mother, UK)*

The issue of trust emerged at the forefront of this discussion in relation to privacy preservation and parental curiosity. Some parents were adamant that they do not and would not use intrusive mediation strategies but prefer to trust their children.

"I'm taking them on trust. I'm aware that you can always be the parent that gets laughed at, but I don't think so." - *(Mother, UK)*

For adolescents, not feeling trusted was a key by-product of parental monitoring.

"Sometimes it's good but I always end up thinking that they're not trusting me." - *(Female Adolescent, UK)*

SA adolescents expressed the same views and also thought that parents often misunderstand the nature or context of online conversations, which results in arguments between them.

<u>Interviewer:</u> *…How do you feel about that?*

<u>Female Adolescent 1 SA:</u> *"Like they don't trust you enough to make your own decisions. It's like they don't want you to do certain things but they forgot when they were younger they did the exact same thing."*

…[some lines omitted]…

<u>Female Adolescent 2 SA:</u> *"And most of the times it is where, when they go through your stuff they don't read it like you would read it to understand what the person is saying. They would read it to like, umm, make an argument with you, like that."*

When asked what advice they would give to parents or how they think parents should approach online mediation, adolescents thought that parents should "come talk to you, not go through your phone". This highlights the importance of trust in the parent-child relationship in relation to ICTs. They also believed that parents needed to step back once they bought their child the technology and trust that their children will use it appropriately. Adolescents also suggested that they want to experience things for themselves, which links to the desire for independence and autonomy during this developmental period. They also acknowledged that they themselves should also not give their parents a reason not to trust them (see Appendix I, Quote 5.21). Once again, this reflects the need for a positive parent-child relationship.

This theme outlined the efforts by parents to mediation online activities, the differences in adolescent and parent perceptions relating to this, and the privacy preservation actions of adolescents to keep their online activities private from adults. Overall, focus groups highlighted a number of important issues and challenges faced in relation to ICTs in both the home and school context and also offered adolescent perspectives on the use and risks of ICTs. These are discussed in relation to the literature in the next section.

5.7 DISCUSSION

A number of important elements related to cyberbullying, online risks and parental mediation that are currently being debated in the literature emerged in the focus groups, most specifically in relation to the nature of online communication and how this affects cyberbullying acts as well as the definition of cyberbullying. Firstly, the theme around disinhibition in online spaces and safety behind the keyboard indicates the way in which adolescents can use online spaces to explore their identities, which is evident in that adolescents mentioned how individuals can take on a different persona when communicating online. Identity exploration is facilitated online as it reduces the fear of embarrassment or fear of disapproval that can occur offline and can provide adolescents with a space in which to share their ideas and feelings and

build positive relationships with others (Denissen, Neumann, & Zalk, 2010; Mesch & Talmud, 2010; Valkenburg & Peter, 2009). As discussed by Livingstone et al. (2012), motivations for identity exploration online include self-experimentation, social compensation as well as social facilitation, and are very beneficial. This was evident in the focus group results, with participants describing a sense of safety behind the keyboard and a lower social risk in interactions than in the real world. For example, apart from being able to take on different personas, they also discussed how one could easily turn a comment into a joke if it did not have the desired outcome.

Suler (2005) describes the online disinhibition effect, and research among adolescents has indicated that many admitted to having communicated in ways online that they would not have done in person (Kite, Gable, & Filippelli, 2013). Although disinhibition exists in online spaces due to the nature of online communication and the relative safety that is afforded to individuals in this context, it is also particularly closely linked to anonymity. Anonymous individuals do not have a fear of discovery which usually acts as a behavioural control (Bauman, 2007) and in these cases particular individuals may act in ways that they would not otherwise do face-to-face. Anonymity was also linked to power dynamics in the focus group results as it is associated with feelings of uncertainty, fear and anxiety among adolescents because individuals do not know where the online attack is coming from. This is in line with previous research suggesting that anonymity can increase insecurity and fear (Dooley, Pyżalski, & Cross, 2009; Nocentini et al., 2010). Literature also indicates that anonymity means that the perpetrator does not need to be more powerful than the victim as described in traditional forms of bullying because anonymity creates the power imbalance (Fauman, 2008). Anonymity also affects offline experiences, with participants expressing that they do not know who to trust or who their friends are. As a result, the spillover effect into offline dynamics can negatively affect the school social climate as well as school attachment and exacerbate the psychological and behavioural consequences of those affected.

The disihibition in online communication and reduced fear of consequences impacts on empathy, particularly due to the absence of traditional physical or verbal cues in

online communication that assist in interpretation of content. As such, participants mentioned that there is often a thin line between what is considered cyberbullying and playful teasing. The literature indicates that the lack of additional cues in online communication as well as an absence of social cues such as emotional responses result in perpetrators being less likely to realise the harm that has been caused and less likely to have an empathic reaction (Kowalski & Limber, 2007). A lack of nonverbal cues is argued to produce behaviour that is self-oriented (Mesch & Talmud, 2010) and the invisibility of the victim allows the perpetrator to not feel guilt (Perren & Gutzwiller-Helfenfinger, 2012). This may account for why cyberbullies have been found to be less empathic in recent research (Steffgen, König, Pfetsch, & Melzer, 2011). Thus, the disinhibition and anonymity and the nature of online communication in general strongly shape online experiences.

Participants' views about there being a thin line between playful teasing and cyberbullying and the interpretation of online communication highlights one key aspect related to the current debate around the definition of cyberbullying, namely, intention. It is widely accepted that there has to be an intention to cause harm to the victim in order for behaviour to be considered bullying (e.g. Olweus, 1993; Menesini et al., 2012) but participants in the focus groups highlighted how, due to the absence of various physical and verbal cues, this is complex in online interactions. The lack of cues in online communication also means that interactions can be taken too far and escalate into something more serious than what was initially intended. The focus group results support the view of Menesini et al. (2012), who claim that intentionality is difficult to determine in online communication because even without being explicitly intended it can still have a negative impact on the victim. Therefore, Grigg (2010) claims that intentionality should be based on the victim's interpretation and the impact of the encounter. This was discussed to some extent in the focus groups, with participants stating that interpretation of online encounters are largely dependent on the individual and their self-image or pre-existing emotional difficulties.

In addition to intention, Olweus (1993) outlined two other criteria that are crucial to the definition of traditional bullying and which are being applied to cyberbullying,

namely, repetition and imbalance of power. With regard to repetition, adolescents stated that when negative online experiences occurred continuously that they would be difficult to ignore and would likely have a negative effect, whereas one incident would be easier to ignore. However, the aspect of repetition was highly debated by the adult participants, particularly teachers. Some teachers were of the view that behaviours should be repeated over a period of time to be considered cyberbullying, while others were of the view that one experience was enough to warrant action especially in serious cases. This is in line with current debate in the area, with Menesini et al. (2012) arguing that repetition is less reliable as a criterion in the online context since one act of cyberbullying can have a repeated impact on the individual, particularly if actions are more public and have a large potential audience. This debate, especially among teacher participants, highlights the barriers in addressing the issue of cyberbullying in this context.

Imbalance of power was discussed in relation to anonymity and the fact that victims sometimes do not know where the attack is coming from. Participants also discussed the potential for cyberbullying to occur continuously and at any time since it does not rely on physical proximity, making it difficult for individuals to escape the incidents. According to Dooley et al. (2009), this creates a power imbalance and creates feelings of powerlessness in the victim, as well as the large potential audience, which can add to the distress to the victim. These aspects all link to the literature on definitions on cyberbullying and differences in online and offline contexts (Dooley et al., 2009; Nocentini et al., 2010). Thus, participants noted important perspectives on cyberbullying that are also issues debated among researchers. This is not only a limitation for research but also in addressing the issue effectively and implementing comprehensive policy.

Participants were asked to describe the main ways in which cyberbullying occurs and this included victimisation through images and video clips, spreading of rumours, impersonation and hacking, exclusion, as well as interactive online games. These behaviours fit in with the classification system proposed by Willard (2007) which includes *written-verbal* acts of bullying (e.g. spreading of rumours and interactions in

online gaming), *visual acts* of bullying (e.g. images and video clips) as well as *impersonation* (e.g. hacking into accounts or posting on someone's behalf) and *exclusion* (e.g. blocking someone from an online group). This was useful in not only providing clear examples of the behaviours adolescents associated with cyberbullying and which they perceived to occur most frequently, but it also directly informed the behaviours that were included in the questionnaire used in subsequent quantitative parts of the current study.

When asked about the reasons for cyberbullying, some adolescents described that it is often done to get a reaction out of someone, which has been established in previous research (Dooley et al., 2009). However, the main view was that it occurred in retaliation, particularly in retaliation to offline conflict. This was supported by previous research (Vandebosch & Van Cleemput, 2008). Participants also stated that individuals engage in online interactions or post online comments more publicly in order to gain social support from peers and getting peers to side with them on conflict occurring offline. Positive feedback from a larger audience can empower individuals and can also act as motivation for cyberbullying (Mesch & Talmud, 2010). This further highlights the element of safety and power in online communication. Retaliation also underscores the important link found in the literature between victims and perpetrators of cyberbullying (Burton & Leoschut, 2012; Patchin & Hinduja, 2006) as well as the link between traditional bullying and cyberbullying (Kite, Gable, & Filippelli, 2010; Mesch & Talmud, 2010) where, for example, individuals who are cyberbullied can act out against others online (i.e. become perpetrators) or where victims in offline contexts might retaliate online.

Another clear aspect that emerged from the focus group interviews was in relation to risk perception. Adolescents described how cyberbullying could happen to anyone and that anyone is at risk, but at the same time they demonstrated optimistic bias about the risks for themselves compared to adolescents their age. This is in line with risk perception research in general, where individuals perceive lower risk for themselves than they do for others (Sjoberg, 2000). This was also found in relation to cyberbullying, with individuals perceiving themselves to be at lower risk than their

peers (Chapin, 2014). Thus, cyberbullying experiences were seen as largely happening to others either due to carelessness in online behaviours or due to certain characteristics that made some individuals more vulnerable. These characteristics included: (i) social aspects such as popularity, (ii) being bullied offline, as well as (iii) individual characteristics such as being shy or having low self-esteem. The focus group results supported findings from the risk perception literature, indicating that individuals tend to distance themselves from feelings of vulnerability by attributing risky behaviours to others and to other external factors. Research has found that, typically, individuals tend to see their own behaviours as less risky and tend to view risks as more controllable for themselves (Benthin, Slovic, & Severson, 1993). The focus group results thus provided evidence for optimistic bias in relation to cyberbullying and underscored the importance of examining risk perception in more detail in the quantitative parts of the current study.

Adult participants' views were similar to the views expressed by adolescents about others their age, with adults perceiving adolescents as careless and ignorant of the consequences of their online behaviours. Adults mentioned that large friendship circles on social media seemed to be a form of status and that adolescents, therefore, accepted friend requests from individuals they do not know and that this puts them at risk. This has also been argued by Aboujaoude et al. (2015), highlighting how larger online groups on social media mean that individuals are only superficially linked together. According to Internet Live Stats (2014, as cited in Aboujaoude et al., 2015), those aged 12-17 years have an average of 506 Facebook friends, with a focus on the size of the online group rather than the strength of the bonds with the individuals forming the group. This is also associated with peer pressure to grow one's social circle in the context of social media (Aboujaoude et al., 2015). Adults also discussed how adolescents did not seem to realise how quickly images can be distributed or how screenshots of comments or images thought to be private can easily become public. They also suggested that adolescents' risk perception related to offline issues (e.g. talking to strangers) does not carry over to the online world and they, therefore, viewed adolescents as naïve to the consequences of online interactions and posts. Important to note, however, that apart from one mother stating that her children do not understand online risks, most of the parents discussed risk perception in relation

to adolescents in general rather than their own children. It is, therefore, unclear from this data whether parents tended to generally hold an optimistic bias about their own children relative to adolescents in general. As such, this was explored further quantitatively in a parent sample, where parents reported on their perceptions relating to their child's online risk perception.

Adult views that adolescents were naïve about online risks despite the generational gap in ICT use between adolescents and parents is a reflection of what Von Solms (2011) explained as 'knowledge vs. wisdom'. Although adolescents acquired technological skills more quickly (i.e. knowledge) they can also demonstrate poor judgement in online interactions that results in risks, whereas adults who may not have the same level of technical knowledge are far more likely to have better judgement and make less risky decisions in online encounters (i.e. wisdom). Adults in the focus groups believed that adolescents were far more immersed in technology and that there was a big difference in terms of technological skills and knowledge between them and their children. The focus group findings clearly brought to light the generational gap in terms of ICT use and knowledge as described in the literature (e.g. Grossbart, Hughes, Pryor, & Yost, 2002; Livingstone & Bober, 2006). Adults also commented on how immersed adolescents were in technology and how different it was growing up for them compared to how their children are growing up. This is highlighted in the literature, with separate terms such as 'digital citizens' and 'digital immigrants' emerging to refer to the adolescent and adult generations in the digital age (Palfrey & Gasser, 2013). Adult participants in the focus groups also described many of the programs as adolescent online spaces, with adolescents even having their own shorthand language (i.e. acronyms) to communicate with each other that adults do not understand. The generational gap is further evident in that some adult participants in the focus groups had their children help them do certain online tasks, which was also found by Mesch and Talmud (2010) with children doing 'cyberchores' for parents. Adolescents also viewed themselves as the experts in technology relative to their parents. Moreover, teachers commented that some parents fail to appreciate just how skilled their children are, believing them to be more innocent in their online behaviours than they are in reality. Therefore, the generational gap affects parents' perceptions about what their children are doing or experiencing

online and also affects their ability to keep up with their children's use of technology and to mediate their online behaviours effectively, since parents cannot mediate behaviours that they are not aware of or programs that they do not understand.

Research shows that parents tended to underestimate the extent of their child's involvement in online risk behaviours (Byrne, Katz, Lee, Linz, & McIlrath, 2014; Livingstone & Bober, 2006), which was reported among teachers in the focus groups. Teachers also rarely heard about cyberbullying experiences among the adolescents that they taught. This is evidence that adults are generally removed from children's online experiences. In fact, teachers believed that they only heard about online incidents when they became very serious and affected the school context, leaving many experiences to go undetected and possibly continuing for extended periods of time. This can exacerbate the potential negative effects of these experiences (Mesch & Talmud, 2010). Due to the generational gap in knowledge and technological skills, adolescents were reluctant to speak to adults about online experiences for fear that they would not understand. Adolescents also did not trust adults' reactions to the situation, fearing that adults would exacerbate the problem or undermine it. Friends were reported as the most likely confidantes in these situations which is in line with previous research (Burton & Leoschut, 2012). This highlights the potential to build on peer support in relation to online risks and cyberbullying.

Lower technical knowledge between parents and adolescents was also highlighted when discussing parental mediation strategies. Literature in this area has found that parents tended to report more mediation compared to adolescents (Livingstone & Bober, 2006; McQuade & Sampat, 2008), suggesting that rules about ICTs are not effective, are easy to get around or are not communicated effectively to adolescents. Although participants described some parental mediation strategies in relation to online media, particularly restrictive mediation and monitoring strategies, adolescents described fewer mediation strategies than parents. This points to the differing perceptions in parental mediation between the two generations. This was explored further in the quantitative parts of the current study.

Apart from the generational gap in knowledge of ICTs and its impact on parental mediation, the findings showed that adolescents were actively engaging in privacy preservation behaviours that affected detection of online risk behaviours among adults. Thus, according to Sorbring and Lundin (2012), adolescents' desire for independence is a challenge to parental mediation. Privacy preservation behaviours of adolescents included deleting and screening online content and visibility of online posts and adding parents as contacts to some programs and not others so that not all of their online contact was monitored. This underscores the importance placed on autonomy and independence during the developmental stage of adolescence. Parents generally believed that they could not deprive their child of technology and that they could not control everything their child did online. They also acknowledged the challenge of balancing adolescent autonomy on the one hand and keeping children safe on the other. Some participants perceived active mediation to be more effective and both adult and adolescent participants discussed the importance of trust and open communication between children and parents, rather than intrusive mediation strategies. According to Smahel et al. (2012), intrusive strategies do not teach children safer online behaviours in the long run and, in fact, restrict their abilities and confidence in handling online risks effectively. Research has also shown that positive parent-child relationships where open and trusting communication is present serve as an important protective factor for cyberbullying and online risks (Byrne et al., 2014; Wells & Mitchell, 2008). Furthermore, Wisniewski, Xu, Carroll and Rosson (2013) argue that online safety is a reciprocal process of parenting and individual characteristics of the adolescent and that the parent-child relationship is, thus, crucial.

The teachers in the focus groups discussed the importance of parental involvement in adolescent online activities and mediation, which would also facilitate their own role. This was also reflected in other studies (Monks, Mahdavi & Rix, 2016). However, some teachers also expressed some frustration with parents expecting them to deal with issues of cyberbullying despite it occurring in the home context, and there was confusion about when they were required to act and when not. Although research has indicated that cyberbullying tends to occur outside of school (Dehue, Bollman & Völlink, 2008), the events leading up to it often begin at school (Cassidy, Jackson & Brown, 2009) where the same children who are victims at school are often victimised

online (Juvonen &Gross, 2008). Therefore, according to Monks, Mahdavi and Rix (2016), cyberbullying is related to the school context and has an effect on students at school and should thus be addressed in both the home and school contexts. This is an important opportunity for partnership between parents and teachers. Representing the two most immediate environments in children's lives (as outlined in the theoretical framework), parents and teachers could work together to assist one another in addressing the issue of online risks, cyberbullying, as well as teaching appropriate online behaviours in general. Teachers specifically acknowledged the importance of working with adolescents on appropriate online behaviours and internet etiquette more broadly. However, the lack of understanding and clear guidelines on when teachers were required to act in incidents that potentially occurred outside of the school and a potential lack of confidence among teachers in addressing the issue of online risks and cyberbullying that has been established in research (Huang & Chou, 2013), is a current limitation in addressing the issue effectively and highlights further need for action.

The findings also clearly indicated that there was a lack of school policies on the issue of cyberbullying in the schools that formed part of the study, with teachers being uncertain about the existence of school policies or the specific procedures to be followed if incidents are reported. This is of concern and indicates the need for policies to be communicated and implemented more effectively in school communities, including school personnel, parents and children. According to Smith et al. (2012), only 8.5% of schools included cyberbullying in their anti-bullying policy in 2002 despite recommendations by government. This increased to 32.3% in 2008 (Smith et al., 2012). This indicates that some schools may still not have adequate policies in place or may not be clear about the implementation of policies, which was reflected in the focus group findings.

Teachers in SA also expressed that the issue of cyberbullying was not a major point of focus given the host of other social problems experienced within the school such as substance abuse and school violence, which were deemed more important to address in comparison. However, considering the serious consequences related to

cyberbullying, which include psychological, emotional and behavioural problems including depression and anxiety (Dempsey, Sulkowski, Nichols, & Storch, 2009) substance abuse and delinquency (Hinduja & Patchin, 2007) and a range of other issues that affect the school context directly such as absenteeism, low school commitment and school violence (Bauman, 2007), it is important to work with schools to assist them to address the issue and to see the severity of these experiences both on individuals and on the school context. This is especially the case since schools play a crucial role in adolescent cognitive and social development (Bayar & Uçanok, 2012). To this end, educational departments are key in providing clear frameworks and guidelines to encourage policy development and implementation. Furthermore, broader campaigns can assist both teachers and parents to better understand the issue of cyberbullying and to identify the signs of individuals at risk to minimise the long-term negative effects. This is particularly important given the generational gap in relation to ICTs and the lack of confidence adolescents currently have in adult reactions in the area.

Apart from providing rich data that would not have been uncovered using survey methods alone, the focus groups also highlighted areas where quantitative data would provide further insights using a larger sample. More specifically, it assisted in framing the cyberbullying behaviours that would be examined in more detail. Risk perception was explored in more detail as a result of the focus group findings as well as differences in parent and adolescent perceptions in this regard. Moreover, differences between adolescents and parents were studied in relation to online behaviours and experiences. The focus group findings also showed the key concerns by adult participants that represented the home and school contexts in relation to mediation strategies, which were explored more fully in the quantitative studies. The results for the cross-sectional and longitudinal results are presented in the two chapters that follow (Chapters 6 and 7).

CHAPTER 6

CROSS-SECTIONAL STUDY RESULTS

6.1 INTRODUCTION

This chapter presents the cross-sectional study results (Time 1), which included both an adolescent and parent sample from each country. Online behaviours, online risk behaviours and perceptions, as well as cyberbullying and parental mediation were examined. The chapter presents the chi-square analyses of the individual items making up each variable and highlights some of the main differences between adolescents between the two countries as well as gender and age differences within adolescents in both countries, as was discussed in section 4.5.3. In addition, comparisons between adolescent reports and parent perceptions in SA and the UK are presented in each section. Following the findings for the individual variables, a section indicating the overall trends in the variables using independent samples t-tests, Factorial ANOVA and one-way ANOVA, are presented. Hypotheses are addressed within the overall trend results. Some initial exploratory correlations are also presented which indicate the interactions of the variables.

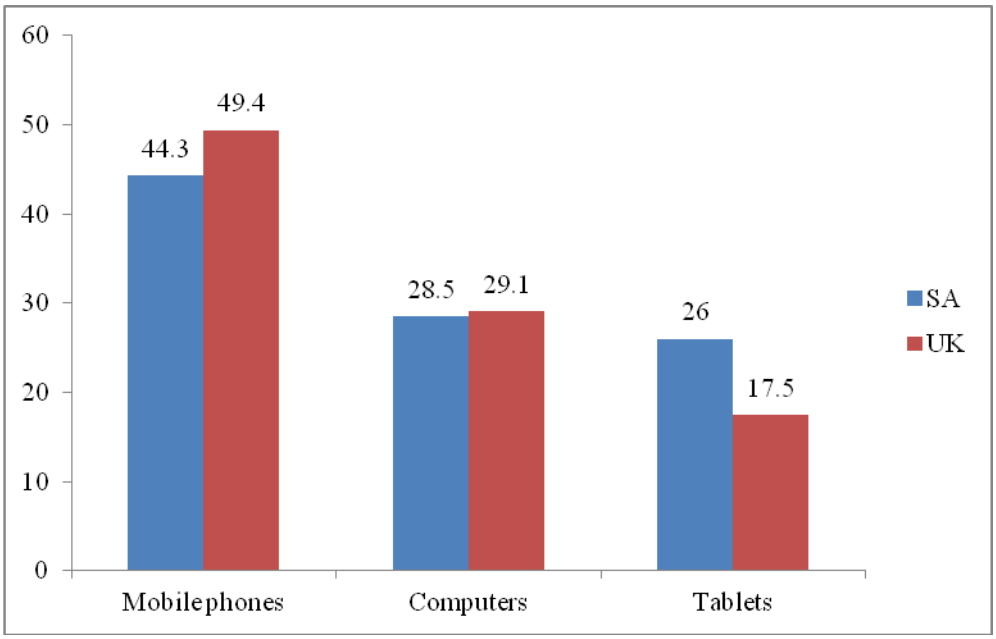
6.2. ACCESS TO TECHNOLOGY AND ONLINE BEHAVIOURS

6.2.1 Adolescents: Gender, Age and Country Trends

Access to technology was high among adolescents in both countries. Most adolescents in SA (95.9%, n = 606) and the UK (94.7%, n = 303) had their own mobile phone, but access to computers at home with internet access varied, with UK adolescents having higher access (96.6%, n = 308) than SA adolescents (83.6%, n = 529), x^2(1, N = 952) = 33.66, p < .001, φ = -.19. Similarly, UK adolescents had higher access to tablets (75.6%, n = 242) than SA adolescents (65.2%, n = 411), x^2(1, N = 950) = 10.65, p = .001, φ = .11. Of the adolescents who had access to a computer with internet at home, 70.8% (n = 213) of UK adolescents and 64.3% (n = 373) of SA adolescents said that the computer was located in a private area of the home such as their bedroom. Of the three devices, adolescents in both countries were most likely to

access the internet from their mobile phones. Adolescents in SA used tablets to go online more than UK adolescents. The differences in the devices used were significant between the countries, $x^2(2, N = 1000) = 16.68$, $p = .001$, V = .1 (see Figure 6.1).

Figure 6.1: Device Adolescents are most likely to use to access the Internet in SA and the UK (%)



UK adolescents engaged in more online activities, with the biggest discrepancies between the countries occurring for programs using webcams, programs involving uploading and commenting on pictures, as well talking to online strangers. A higher proportion of SA adolescents used instant messaging programs, as shown in Table 6.1 (next page). For ease of reading, in this table as well as for all subsequent tables in this chapter, the larger values are shown in bold where findings were significant.

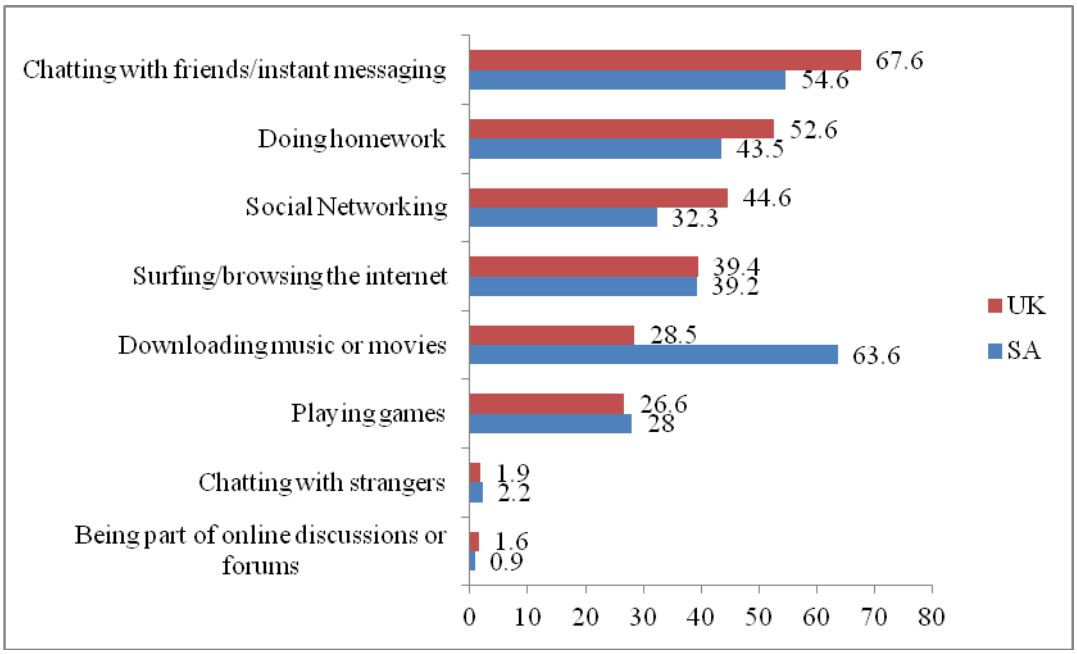
Table 6.1: Adolescent Online Behaviours: Differences between SA and the UK (Chi-square)

Online Behaviour	Adolescents		
	SA	**UK**	x^2
1. Instant Messaging	**95.5%** (n= 652)	75.1% (n = 238)	91.88*** †
2. Social Networking	89.7% (n= 612)	89.9% (n = 286)	0.01
3. Programs involving uploading /commenting on pictures (e.g. Instagram, Snapchat)	67.6% (n= 462)	**84.9%** (n = 270)	32.90***
4. Programs involving uploading/ sharing videos (e.g. YouTube)	57.9% (n= 396)	**72.9%** (n = 231)	20.76***
5. Participation in websites (e.g. blogs, discussion forums)	49.5% (n= 338)	**56.3%** (n = 179)	4.02*
6. Programs involving webcam (e.g. Skype, Chat Roulette)	38.5% (n= 262)	**64.6%** (n = 203)	59.16*** †
7. Interactive Online Games (e.g. World of Warcraft, Second Life)	37.2% (n= 253)	35.3% (n = 112)	0.33
8. Talking to online strangers	27.4% (n= 187)	**42.9%** (n = 137)	24.09***
9. Websites to read/post anonymous comments (e.g. AskFM)	23.3% (n= 158)	**31.1%** (n = 98)	6.78**
10. Chat Rooms	18.4% (n= 125)	**26.0%** (n = 83)	7.68**

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Adolescents reported on the activities they were most likely to engage in online and multiple response frequencies showed that UK adolescents chatted with friends, did homework, and used social networking sites most often, while SA adolescents were more likely to be downloading music or movies online (see Figure 6.2, next page).

Figure 6.2: Activities Adolescents are most likely to engage in online (%)



Chi-square analyses revealed some interesting differences in gender and age for the individual online activities. For gender, males in both countries were significantly more likely to play interactive online games and to use programs that include watching or sharing videos (e.g. YouTube), while females were significantly more likely to use programs that involve uploading or commenting on pictures (see Table 6.2, next page). Social networking and using programs such as Instagram increased with age in SA, while programs using webcams, instant messaging and online gaming decreased with age in the UK sample especially between early and middle adolescence. Age was non-significant for the other online activities.

Table 6.2: Online Behaviours According to Gender and Age of Adolescents in SA and the UK (Chi- square)

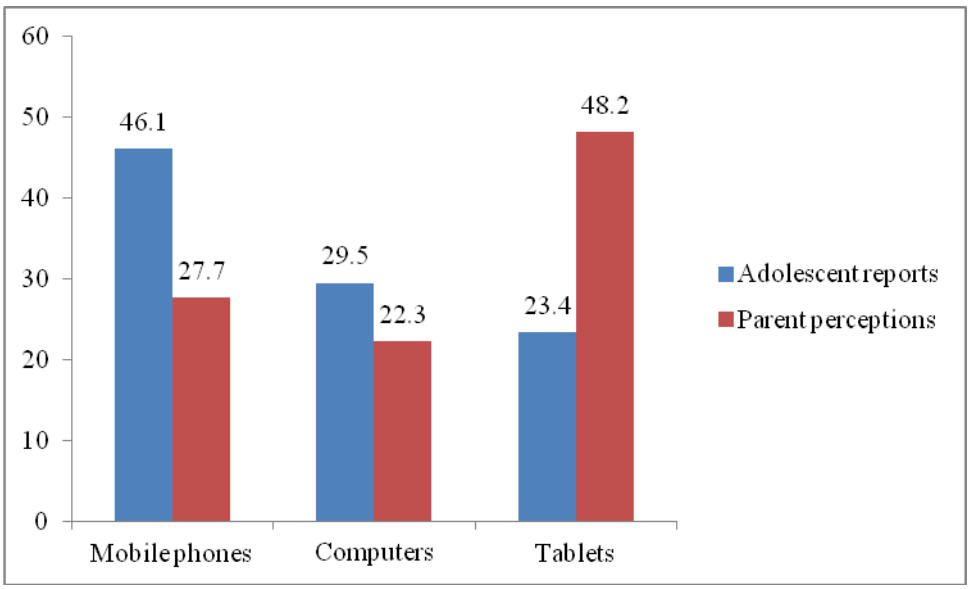
	SA							UK						
Online Behaviours	**Gender**		x^2	**Adolescence**			x^2	**Gender**		x^2	**Adolescence**			x^2
	Male	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. Instant Messaging (e.g. Whatsapp, Viber)	96.5% (n = 273)	94.8% (n = 379)	1.13	93.5% (n = 144)	96.1% (n = 393)	95.8% (n = 115)	1.77	71.3% (n= 77)	77.0% (n= 161)	1.25	**87.2%** (n = 75)	69.6% (n = 110)	72.2% (n = 52)	9.57**
2. Social Networking (e.g. Facebook)	86.9% (n = 246)	**91.7%** (n = 366)	4.15*	81.2% (n = 125)	**90.9%** (n = 371)	**96.7%** (n = 116)	19.16***	90.8% (n= 99)	89.5% (n= 187)	0.15	86.2% (n = 75)	88.6% (n = 140)	97.2% (n = 70)	5.85
3. Programs involving uploading or commenting on pictures (e.g. Instagram)	56.2% (n = 159)	**75.8%** (n = 303)	28.99***	55.2% (n = 85)	**71.4%** (n = 292)	**70.8%** (n = 85)	14.09**	76.9% (n= 83)	**89%** (n= 187)	8.28**	85.1% (n = 74)	86.0% (n = 135)	82.2% (n = 60)	0.56
4. Programs involving uploading or sharing videos (e.g. YouTube)	**65.8%** (n = 187)	52.3% (n = 209)	12.59***	64.3% (n = 99)	57.3% (n = 235)	51.7% (n = 62)	4.55	**83.3%** (n= 90)	67.5% (n= 141)	9.07**	71.3% (n = 62)	72.8% (n = 115)	74.6% (n = 53)	0.23
5. Participation in websites (e.g. blogs, discussion forums)	39.9% (n = 113)	**56.3%** (n = 225)	17.66***	46.8% (n = 72)	51.1% (n = 209)	47.5% (n = 57)	1.08	57.4% (n= 62)	55.7% (n= 117)	0.08	50.6% (n = 44)	58.9% (n = 93)	56.9% (n = 41)	1.59
6. Programs involving webcam (e.g. Skype)	35.9% (n = 101)	40.3% (n = 161)	1.29	32.7% (n = 50)	40.0% (n = 163)	40.8% (n = 49)	2.83	67% (n=71)	63.5% (n= 132)	0.38	**74.4%** (n = 64)	65.4% (n = 102)	50.7% (n = 36)	9.65**
7. Interactive Online Games (e.g. World of Warcraft)	**56.6%** (n = 159)	23.6% (n = 94)	76.97***	42.9% (n = 66)	34.9% (n = 142)	37.8% (n = 45)	3.06	**66.7%** (n= 72)	19.1% (n= 40)	70.4***††	**49.4%** (n = 43)	31.6% (n = 50)	25.4% (n = 18)	11.62**
8. Talk to people on the internet who you've never met in real life	27.6% (n = 78)	27.3% (n = 109)	0.01	21.4% (n = 33)	28.6% (n = 117)	30.8% (n = 37)	3.77	**51.4%** (n= 56)	38.6% (n= 81)	4.80*	28.7% (n = 25)	49.1% (n = 78)	45.8% (n = 33)	3.60
9. Go on websites to read or post anonymous comments (e.g. Ask FM)	20.4% (n = 57)	25.4% (n = 101)	2.24	17.6% (n = 27)	24.9% (n = 101)	25.2% (n = 30)	3.58	30.6% (n= 33)	31.4% (n= 65)	0.02	33.3% (n = 29)	32.5% (n = 51)	24.3% (n = 17)	1.86
10. Chat Rooms	21.4% (n = 60)	16.3% (n = 65)	2.82	20.1% (n = 31)	18.0% (n = 73)	17.5% (n = 21)	0.42	**36.7%** (n=40)	20.5% (n = 43)	9.81**	23.0% (n = 20)	27.7% (n = 44)	25.0% (n = 18)	0.68

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

6.2.2 Differences Between Adolescent Reports and Parent Perceptions

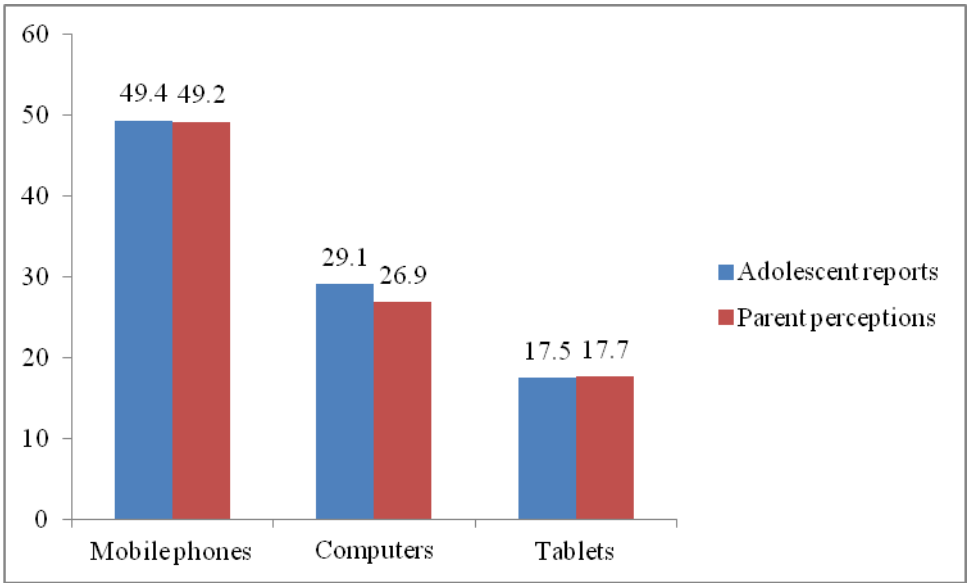
Although adolescents were most likely to use mobile phones to access the internet, parents in SA underestimated the use of mobile phones and overestimated the use of tablets to access the internet (see Figure 6.3). This difference was significant and indicated a medium effect, $x^2(3, N = 892) = 52.08$, $p < .001$, V = .24.

Figure 6.3: Technology Most Likely to be Used To Access The Internet: Differences Between Adolescent Reports And Parent Perceptions in SA (%)



In contrast, parents in the UK had a very accurate perception of the devices their child used to go online (see Figure 6.4, next page) and the difference was non-significant.

Figure 6.4: Technology Most Likely to be Used to Access the: Differences Between Adolescent Reports And Parent Perceptions in the UK (%)



Some discrepancies emerged between adolescent reports and parent perceptions of the online activities they engaged in (See Table 6.3, next page). Findings showed that parents in both countries significantly underestimated their child's use of programs involving a webcam, their child going on websites to read or post anonymous comments, and their child's participation in websites by commenting on blogs or being part of discussion forums. Parents also underestimated the extent to which their child communicated with people online that they had never met in person. While parents in the UK underestimated their child's engagement in chat rooms, parents in SA overestimated this online activity. Furthermore, parents in the UK underestimated online gaming.

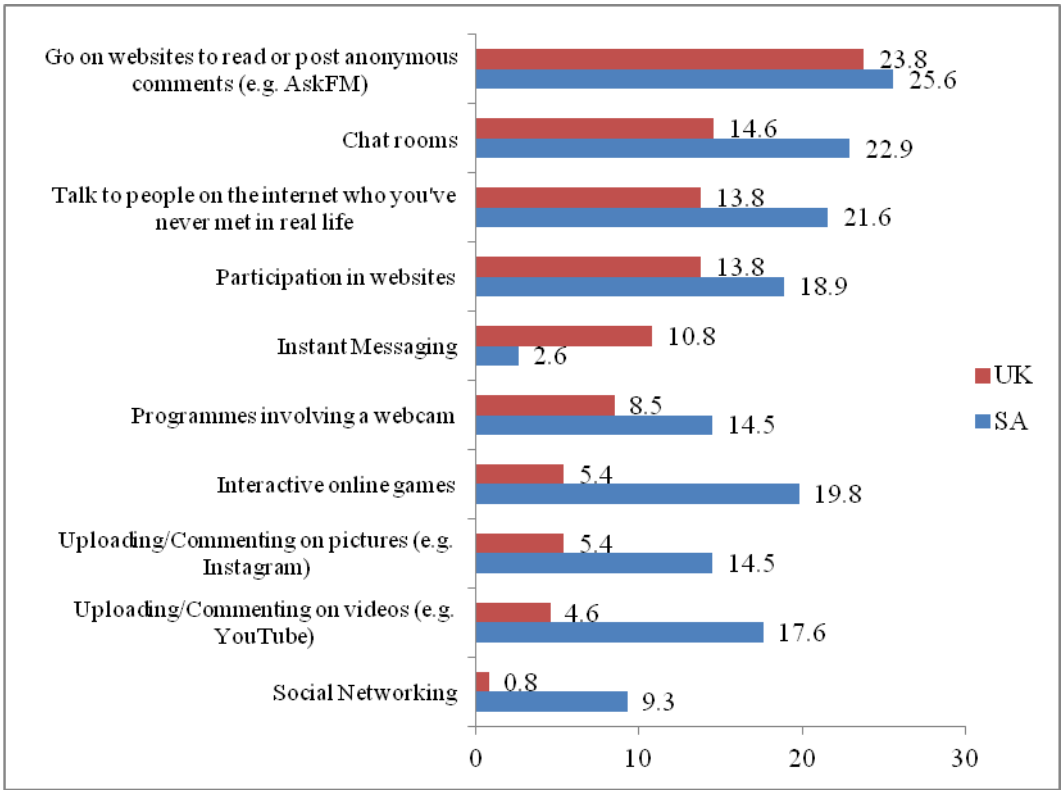
Table 6.3: Online Behaviours: Differences Between Adolescent Reports and Parent Perceptions in SA and the UK (Chi-square)

	SA			UK		
Online Behaviour	**Adolescent Reports**	**Parent Perceptions**	x^2	**Adolescent Reports**	**Parent Perceptions**	x^2
1. Instant Messaging (e.g. Whatsapp, Viber)	95.5% (n= 652)	96.3% (n= 207)	0.26	75.1% (n = 238)	76.5% (n = 88)	0.06
2. Social Networking (e.g. Facebook)	**89.7%** (n= 612)	79.4% (n= 158)	14.95***	89.9% (n = 286)	83.3% (n = 105)	3.74
3. Programs involving uploading or commenting on pictures (e.g. Instagram)	67.6% (n= 462)	62.9 (n= 117)	1.48	**84.9%** (n = 270)	73.8% (n = 90)	7.35**
4. Programs involving uploading or sharing videos (e.g. YouTube)	57.9% (n= 396)	58.1% (n= 104)	0.002	72.9% (n = 231)	76.2% (n = 93)	0.51
5. Participation in websites (e.g. blogs, discussion forums)	**49.5%** (n= 338)	40.6% (n= 71)	4.44*	**56.3%** (n = 179)	41.3% (n = 45)	7.33**
6. Programs involving webcam (e.g. Skype)	**38.5%** (n= 262)	18.8% (n= 35)	25.06***	**64.6%** (n = 203)	47.0% (n = 55)	11.04**
7. Interactive Online Games (e.g. World of Warcraft)	37.2% (n= 253)	33.5% (n= 58)	0.81	35.3% (n = 112)	**47.5%** (n = 57)	5.44*
8. Talk to people on the internet who you've never met in real life	**27.4%** (n= 187)	15.4% (n= 26)	10.39**	**42.9%** (n = 137)	28.2% (n = 31)	7.48**
9. Go on websites to read or post anonymous comments (e.g. Ask FM)	**23.3%** (n= 158)	10.1% (n= 16)	13.77***	**31.1%** (n = 98)	15.5% (n = 15)	9.12**
10. Chat Rooms	18.4% (n= 125)	**34%** (n= 55)	18.87***	**26.0%** (n = 83)	15.1% (n = 16)	5.31*

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

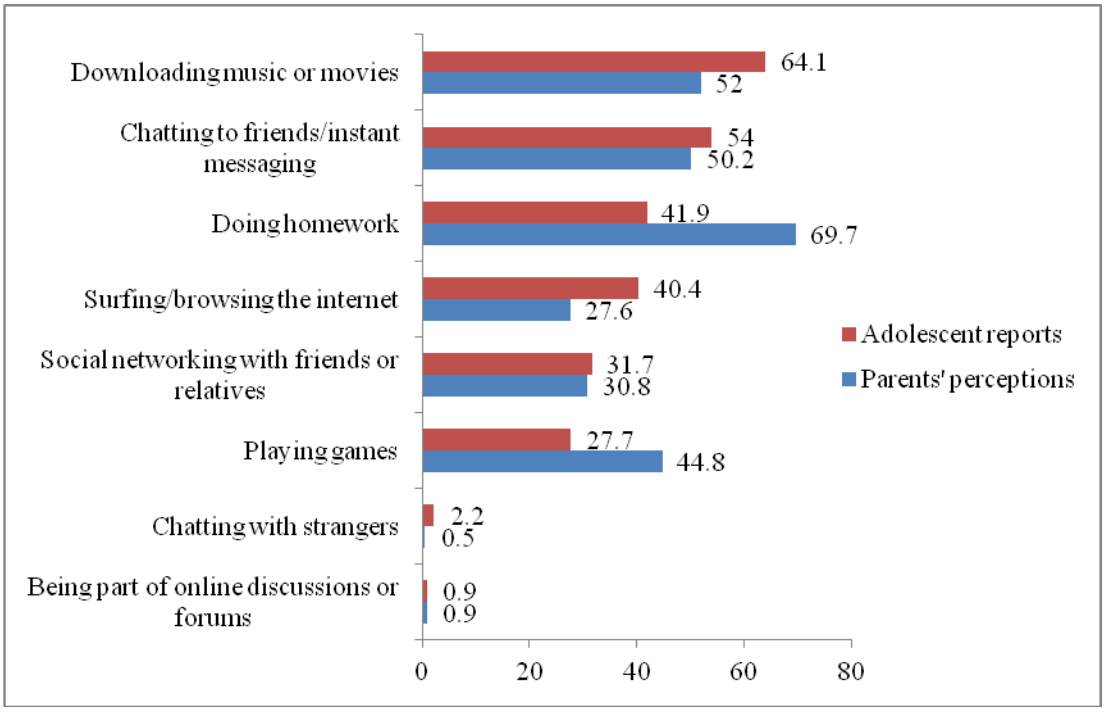
Another important feature of this analysis is the addition of an 'I don't know' option in the Likert scale for the parent questionnaire. Findings suggested that a large proportion of parents were unaware of their child's use of certain programs or activities (see Figure 6.5, next page). Parents in SA were more likely to not know whether their child engaged in various online activities.

Figure 6.5: Proportion of Parents who Admitted that they Did Not Know if their Child Engaged in Various Online Activities (%)



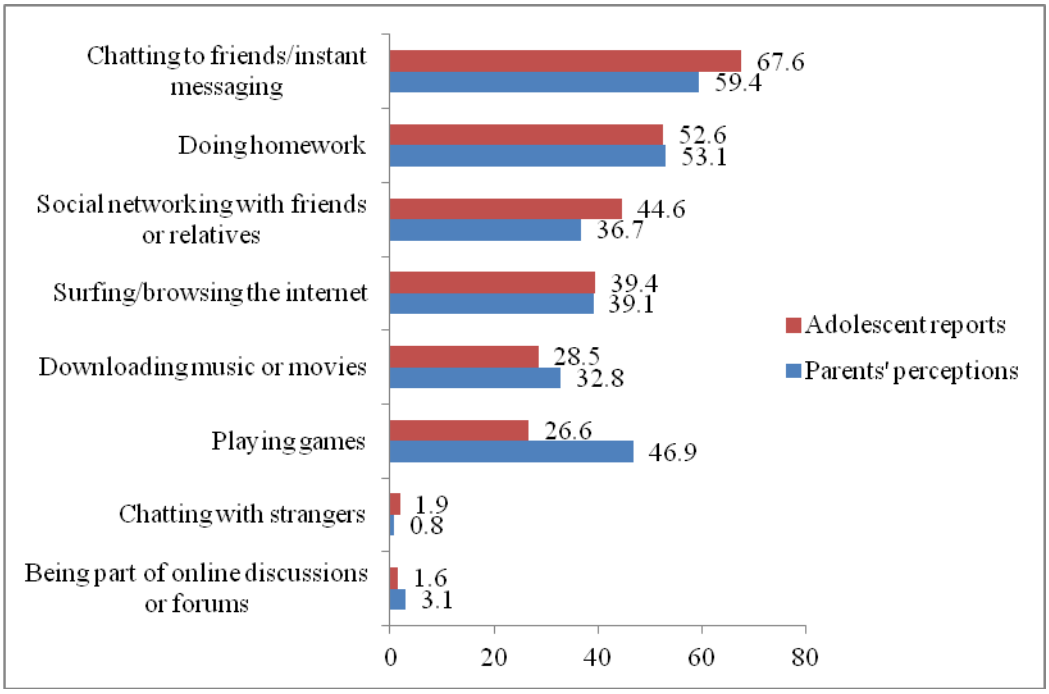
Parents in SA perceived that their child's main reason for being online was to do homework, followed by downloading music or movies and chatting to friends or instant messaging. Again, findings showed that parents in SA overestimated online gaming (see Figure 6.6, next page).

Figure 6.6: Most Likely Online Activities: Differences Between Adolescent Reports and Parent Perceptions in SA (%)



In the UK, parents accurately believed that their child was most likely to go online to chat to friends and to do homework. Like parents in SA, parents in the UK overestimated the likelihood of their child going online most often to play games (see Figure 6.7, next page).

Figure 6.7: Most Likely Online Activities: Differences Between Adolescent Reports and Parent Perceptions in the UK (%)



6.3. RISK PERCEPTION

6.3.1 Adolescents: Gender, Age and Country Trends

The key differences between the countries showed that adolescents in SA were significantly more likely to feel afraid of being harassed or threatened, to report feeling worried about things that can go wrong when online, and to believe that they would not know what to do if faced with a dangerous situation online. Meanwhile, UK adolescents were significantly more likely to believe that they could handle the risks of the internet better than others their age, that the internet is very safe, that people on the internet are usually honest about who they are and that the benefits of the internet outweigh the dangers (see Table 6.4, next page).

Table 6.4: Risk Perception: Differences between Adolescents in SA and the UK (Chi-square)

Risk Perception	Adolescents		
	SA	UK	x^2
1. The internet is an important way for teenagers to search for information, talk to each other and be entertained.	79.0% (n = 542)	**88.1%** (n = 281)	17.28***
2. The benefits of the internet are far bigger than any dangers.	29.3% (n = 200)	**39.8%** (n = 127)	14.33**
3. I worry about things that can go wrong when I am on the internet.	**51.7%** (n = 354)	38.1% (n = 120)	30.01***
4. Adults make too much of a fuss when it comes to the risks of the internet.	48.6% (n = 331)	39.9% (n = 126)	7.03
5. In my experience the internet is very safe.	39.9% (n = 274)	**56.9%** (n = 181)	25.31***
6. I feel I can handle the risks of the internet better than most teenagers my age.	52.2% (n = 357)	**63.1%** (n = 200)	14.70**
7. I would not know what to do if faced with a dangerous situation on the internet.	**34.6%** (n = 236)	18.4% (n = 58)	46.20*** †
8. I cannot control the things that can happen to me on the internet.	22.4% (n = 153)	22.2% (n = 70)	2.66
9. I am afraid of being harassed or threatened on the internet, tablet or cellphone.	**34.5%** (n = 235)	21.0% (n = 66)	23.62***
10. It is important that adults keep a watch over teenagers' internet behaviours.	**47.9%** (n = 327)	34.9% (n = 110)	15.59***
11. Information on the internet should not have an age restriction; anyone should be able to make their own decisions and access anything they want.	25.5% (n = 175)	**31.4%** (n = 99)	8.33*
12. People on the internet are usually honest about who they are.	9.8% (n = 67)	**15.8%** (n = 50)	46.69*** †
13. Access to the internet helps me with homework.	81.7% (n = 558)	**95.2%** (n = 299)	35.38*** †
14. I discover useful things online that I didn't know.	81.1% (n = 555)	**90.1%** (n = 283)	15.89***
15. Children who don't have internet are at a disadvantage compared to those who do have internet.	49.5% (n = 339)	**70.3%** (n = 222)	46.87*** †

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

In both countries, males were more likely to perceive the benefits of the internet as being bigger than the potential dangers and to believe that the internet is very safe, while females were more likely to report feeling afraid of being harassed or threatened online (see Table 6.5, p.171). Additional gender difference in each country showed that SA males more likely to report that they can handle the risks of the internet better than most teenagers their age, while females were more likely to report that they would not know what to do if faced with a dangerous situation online. Females in SA were also more likely to report that access to the internet helps them with their homework, that they discover useful things online that they did not know, and that children who do not have internet are at a disadvantage. In the UK, males were more likely to think that adults make too much of a fuss about online risks and were also more likely to think that content on the internet should not have an age

restriction compared to females. Some age related differences were found in the SA sample. For example, the perception that they could handle the risks of the internet better than most teenagers their age tended to increase with age, while not knowing what to do if faced with a dangerous situation online and feeling afraid of being harrassed or threatened online decreased with age. In the UK, no age related differences were found for any of the items.

Table 6.5: Risk Perception According to Gender and Age of SA and UK Adolescents (Chi-square)

	SA							UK						
Risk Perception	**Gender**		x^2	**Adolescence**			x^2	**Gender**		x^2	**Adolescence**			x^2
	Male	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. The internet is an important way for teenagers to search for information, talk to each other and be entertained.	82.1% (n = 234)	76.8% (n = 308)	2.82	76.0% (n = 117)	79.9% (n = 329)	80.0% (n = 96)	1.73	91.7% (n = 100)	86.2% (n = 181)	3.22	83.7% (n = 72)	92.5% (n = 147)	83.6% (n = 61)	6.99
2. The benefits of the internet are far bigger than any dangers.	**37.7%** (n = 107)	23.3% (n = 93)	18.61***	27.3% (n = 42)	27.4% (n = 112)	38.3% (n = 46)	5.97	**52.3%** (n = 57)	33.3% (n = 70)	11.05**	34.5% (n = 30)	38.6% (n = 61)	47.9% (n = 35)	4.71
3. I worry about things that can go wrong when I am on the internet.	48.1% (n = 137)	54.3% (n = 217)	2.61	58.7% (n = 91)	50.7% (n = 208)	45.8% (n = 55)	5.31	32.1% (n = 34)	34.0% (n = 71)	0.83	29.4% (n = 25)	34.0% (n = 53)	35.6% (n = 26)	0.90
4. Adults make too much of a fuss when it comes to the risks of the internet.	46.5% (n = 132)	50.1% (n = 199)	1.88	50.6% (n = 78)	48.5% (n = 197)	46.3% (n = 56)	1.27	**55.6%** (n = 60)	31.7% (n = 66)	16.85*** †	40.0% (n = 34)	41.8% (n = 66)	34.7% (n = 25)	3.39
5. In my experience the internet is very safe.	**47.7%** (n = 136)	34.4% (n = 138)	12.76**	44.5% (n = 69)	37.1% (n = 152)	43.8% (n = 53)	7.40	**69.7%** (n = 76)	50.2% (n = 105)	11.20**	59.3% (n = 51)	54.4% (n = 86)	58.9% (n = 43)	4.21
6. I feel I can handle the risks of the internet better than most teenagers my age.	**57.3%** (n = 164)	48.5% (n = 193)	10.60**	46.5% (n = 72)	50.6% (n = 207)	**65.0%** (n = 78)	14.61**	65.4% (n = 70)	61.9% (n = 130)	1.83	53.5% (n = 46)	64.6% (n = 102)	70.8% (n = 51)	5.89
7. I would not know what to do if faced with a dangerous situation on the internet.	25.7% (n = 73)	**40.9%** (n = 163)	22.19***	**39.0%** (n = 60)	36.7% (n = 150)	21.7% (n = 26)	14.59**	21.5% (n = 23)	16.7% (n = 35)	1.21	14.0% (n = 12)	19.7% (n = 31)	19.4% (n =14)	5.48
8. I cannot control the things that can happen to me on the internet.	22.8% (n = 65)	22.1% (n = 88)	0.71	25.3% (n = 39)	21.3% (n = 87)	22.3% (n = 27)	8.83	24.8% (n = 26)	21.0% (n = 44)	5.53	22.1% (n = 19)	25.6% (n = 40)	13.9% (n = 10)	4.40
9. I am afraid of being harassed or threatened on the internet, tablet or mobile phone.	26.4% (n = 75)	**40.2%** (n = 160)	13.97**	**46.8%** (n = 72)	29.4% (n = 120)	35.8% (n = 43)	15.41**	16.0% (n = 17)	**23.6%** (n = 49)	8.09*	24.1% (n = 21)	22.1% (n = 34)	13.9% (n = 10)	3.65
10. It is important that adults keep a watch over teenagers' internet behaviours.	44.9% (n = 127)	50.1% (n = 200)	2.82	49.7% (n = 77)	46.9% (n = 191)	49.2% (n = 59)	3.27	32.7% (n = 35)	36.1% (n = 75)	2.80	37.9% (n = 33)	36.8% (n = 57)	26.4% (n = 19)	5.26
11. Online information should not have an age restriction	26.5% (n = 76)	24.8% (n = 99)	0.28	20.0% (n = 31)	**28.0%** (n = 115)	24.0% (n = 29)	14.05**	**49.5%** (n = 53)	22.1% (n = 46)	24.67*** †	32.6% (n = 28)	32.7% (n = 51)	26.4% (n = 19)	5.42
12. People on the internet are usually honest about who they are.	10.5% (n = 30)	9.3% (n = 37)	1.89	5.8% (n = 9)	**12.0%** (n = 49)	7.4% (n = 9)	11.66*	19.6% (n = 21)	13.8% (n = 29)	1.98	17.2% (n = 15)	17.2% (n = 27)	9.7% (n = 7)	2.84
13. Access to the internet helps me with homework.	**89.9%** (n = 257)	75.8% (n = 301)	34.54*** †	87.0% (n = 134)	76.7% (n = 313)	**91.7%** (n = 111)	25.69***	94.4% (n = 101)	95.7% (n = 198)	5.59	95.4% (n = 83)	94.9% (n = 148)	95.7% (n = 67)	2.62
14. I discover useful things online that I didn't know.	**90.9%** (n = 259)	74.2% (n = 296)	30.90*** †	87.0% (n = 134)	75.4% (n = 309)	**93.3%** (n = 112)	27.49***	93.4% (n = 99)	88.5% (n = 184)	3.47	87.1% (n = 74)	90.4% (n = 141)	93.1% (n = 67)	2.96
15. Children who don't have internet are at a disadvantage compared to those who do have internet.	**59.2%** (n = 170)	42.5% (n = 169)	28.50***	53.5% (n = 83)	46.2% (n = 189)	**55.4%** (n = 67)	14.42**	78.5% (n = 84)	66.0% (n = 138)	5.45	67.8% (n = 59)	69.9% (n = 109)	73.6% (n = 53)	3.62

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

6.3.2 Differences Between Adolescent Reports and Parent Perceptions

Parents in both countries indicated higher concern about risks for their child in general compared to adolescents. For example, parents were more likely to be worried about things going wrong while their child is online compared to adolescents. But, interestingly, parents were more likely to perceive the benefits of the internet as being bigger than the dangers than adolescents in both countries. On the other hand, adolescents were more likely to believe that the internet is very safe compared to parent perceptions. Adolescents generally expressed a lower desire for regulation of online activities and were more likely to report that adults make too much of a fuss about online risks. Differences between the countries showed that parents in the UK were more likely to believe that ther child would not know what to do if faced with a dangerous situation online compared to adolescent reports. In contrast, adolescents in SA were more likely to report that they would not know what to do if faced with a dangerous situation online compared to their parents. Parents in SA were also more likely to believe that the internet was useful for homework and for discovering useful things online that they did not know, and to believe that children without internet are at a disadvantage (see Table 6.6, next page).

Table 6.6: Risk Perception: Differences Between Adolescent Reports and Parent Perceptions in SA and the UK (Chi-square)

	SA			UK		
Risk Perception	**Adolescent Reports**	**Parent Perceptions**	x^2	**Adolescent Reports**	**Parent Perceptions**	x^2
1. The internet is an important way for teenagers to search for information, talk to each other and be entertained.	79.0% (n = 542)	**80.1%**[25] (n = 181)	11.12**	**88.1%** (n = 281)	81.4% (n = 105)	6.68*
2. The benefits of the internet are far bigger than any dangers.	29.3% (n = 200)	**54.0%** (n = 122)	45.32*** †	39.8% (n = 127)	**58.1%** (n = 75)	17.09***
3. I worry about things that can go wrong when I/my child is on the internet.	51.7% (n = 354)	**78.8%** (n = 178)	52.24*** †	38.1% (n = 120)	**60.5%** (n = 78)	27.87*** †
4. Adults make too much of a fuss when it comes to the risks of the internet.	**48.6%** (n = 331)	17.9% (n = 40)	133.04*** ††	**39.9%** (n = 126)	13.2% (n = 17)	81.41*** ††
5. In my experience the internet is very safe.	**39.9%** (n = 274)	21.5% (n = 48)	52.60*** †	**56.9%** (n = 181)	26.8% (n = 34)	43.20*** †
6. I feel I/my child can handle the risks of the internet better than most teenagers my age.	52.2% (n = 357)	44.2% (n = 100)	4.51	63.1% (n = 200)	55.5% (n = 71)	3.10
7. I/my child would not know what to do if faced with a dangerous situation on the internet.	**34.6%** (n = 236)	25.8% (n= 58)	7.19*	18.4% (n = 58)	**50.0%** (n = 64)	81.90*** ††
8. I/my child cannot control the things that can happen to me on the internet.	22.4% (n = 153)	24.3% (n = 55)	4.21	**22.2%** (n = 70)	16.3% (n = 21)	11.95**
9. I am afraid of being/my child being harassed or threatened on the internet, tablet or cellphone.	34.5% (n = 235)	**58.7%** (n = 131)	46.94*** †	21.0% (n = 66)	15.5% (n = 20)	2.09
10. It is important that adults keep a watch over teenagers' internet behaviours.	47.9% (n = 327)	**97.3%** (n = 220)	173.02*** ††	34.9% (n = 110)	**91.5%** (n = 118)	118.01*** ††
11. Online information should not have an age restriction: anyone should be able to make their own decisions and access anything they want.	**25.5%** (n = 175)	12.0% (n = 27)	73.32*** †	**31.4%** (n = 99)	8.6% (n = 11)	70.07*** ††
12. People on the internet are usually honest about who they are.	**9.8%** (n = 67)	4.9% (n = 11)	24.89***	**15.8%** (n = 50)	14.0% (n = 18)	11.84**
13. Access to the internet helps me/my child with homework.	81.7% (n = 558)	**96.0%** (n = 218)	28.48***	95.2% (n = 299)	95.3% (n = 218)	0.58
14. I/my child discover(s) useful things online that I didn't know.	81.1% (n = 555)	**93.4%** (n = 212)	19.24***	90.1% (n = 283)	92.2% (n = 119)	0.76
15. Children who don't have internet are at a disadvantage compared to those who do have internet.	49.5% (n = 339)	**82.8%** (n = 188)	79.50*** †	70.3% (n = 222)	79.8% (n = 103)	4.42

(Note: *= p<.05, **= p<.01, ***= p<.001; † = medium effect, †† = large effect)

[25] The item 'The internet is an important way for teenagers to search for information, talk to each other and be entertained' is significant as a higher proportion of the remaining adolescent participants indicated that they were neutral or unsure about the statement, while a higher proportion of the remaining parents disagreed with the statement.

6.4. ONLINE RISKS

6.4.1 Adolescents: Gender, Age and Country Trends

6.4.1.1 Conduct Risks: General Conduct Risks and Sexting

For general conduct risks, chi-square analyses showed that adolescents in the UK were significantly more likely to spend more time with friends online than in real life, to be more comfortable talking to people online than in real life, and to find it easier to make friends online than friends in real life compared to SA adolescents. Although a similar proportion of adolescents agreed that they usually trust people they met online, adolescents in SA were more likely to disagree with this statement (67.9%, n = 462) compared to UK adolescents (56.2%, n = 173), while UK adolescents were more likely to report being neutral or unsure about whether they usually trust people they meet online (27.6%, n = 85) compared to SA adolescents (15.9%, n = 108). A similar proportion of adolescents also stated that they did not check their security or privacy settings online, but SA adolescents were more likely to state that they were unsure whether they did so (21.2%, n = 143) compared to UK adolescents (12.7%,n = 39). Thus, UK adolescents were more likely to check their online security and privacy settings (74.6%, n = 229) compared to SA adolescents (66.3%, n = 448). This accounts for the significant findings for these two items. SA adolescents were also more likely to report that they would give out personal information about themselves online to win a prize than UK adolescents (see Table 6.7, next page).

Table 6.7: General Conduct Risk Items: Differences Between Adolescents in SA and the UK (Chi-square)

Conduct Risks (General)	Adolescents		
	SA	UK	x^2
1. I spend more time with friends online than friends in real life	14.7% (n = 100)	**24.9%** (n = 77)	44.73*** †
2. I usually trust people I meet on the internet	16.0% (n = 109)	**16.2%**[26] (n = 50)	22.27***
3. I am more comfortable talking to people online than in real life	35.2% (n = 239)	**36.4%** (n = 111)	27.95***
4. I would give out personal information about myself online to win a prize	**10.5%** (n = 71)	5.5% (n = 17)	6.42*
5. I do not check my security and privacy settings on my social networking profile or websites I visit.	11.2% (n = 76)	12.7% (n = 39)	5.81
6. I often talk to strangers on the internet for fun.	12.4% (n = 84)	11.0% (n = 34)	1.12
7. I have sent my picture to someone I met on the internet.	16.4% (n = 112)	13.4% (n = 41)	1.67
8. It's easier to make friends online than friends in real life.	25.2% (n = 172)	32.0% (n = 98)	5.49

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Females in SA were more trusting of people they meet on the internet, more comfortable talking to people online than in real life, and more likely to say that they would give out personal information about themselves online to win a prize compared to males. These behaviours were also found to peak at middle adolescence in the SA sample. Having sent their picture to someone they met online was found to increase with age of SA adolescents. No gender or age differences were found in the UK sample (see Table 6.9, p. 176).

Sexting was examined as an additional conduct related risk and findings showed that 58.8% (n = 405) of SA adolescents and 36.6% (n = 117) of UK adolescents reported some involvement in sexting behaviours which included both sending and receiving sexting material either to a stranger or to a known individual. In SA, females were significantly more likely to have been involved in sexting (68.3%, n = 274) compared to males (45.5%, n = 131), $x^2(1, N = 405) = 36.103$, $p < .001$, $\varphi = -.23$. There was also a significant increase in sexting behaviours between early and middle adolescence in SA, x^2 (2, N = 405) = 15.35, $p < .001$, $V = .15$. More specifically,

[26] These items were significant as a higher proportion of the remaining parent participants indicated that they were unsure about this statement in relation to their child's online behavior, while a higher proportion of the remaining adolescent participants disagreed with the statement.

while 45.2% (n = 70) of those in early adolescence admitted involvement in any sexting behaviours, 63.0% (n = 260) of those in middle and 62.0% (n = 75) of those in late adolescence reported sexting behaviours in SA. In the UK, gender was non-significant, with similar involvement by males (32.1%, n = 35) and females (38.9%, n = 82). Sexting experiences also increased between early and middle adolescence in the UK, x^2 (2) = 6.68, p = .035, V = .15. While a quarter (25.3%, n = 67) of those in early adolescence reported sexting behaviours, 40.9% (n = 65) of those in middle and 41.1% (n = 30) of those in late adolescence reported any sexting behaviours in the UK.

The individual items distinguished between sending and receiving sexting material to either an online stranger or to a known individual. SA adolescents were significantly more likely to send and receive sexting material from someone they know as well as send (but not receive) sexting material to an online stranger compared to UK adolescents (see Table 6.8).

Table 6.8: Sexting: Difference between Adolescents in SA and the UK (Chi-square)

Conduct Risks (Sexting)	**Adolescents**		
	SA	**UK**	x^2
1. I have received a sexual comment or sexual picture from someone I know	**43.3%** (n = 238)	33.3% (n = 97)	8.03**
2. I have received a sexual comment or sexual picture from an online stranger	30.4% (n = 193)	34.0% (n = 99)	1.18
3. I have sent a sexual comment or sexual picture to someone I know	**25.9%** (n = 165)	17.9% (n =52)	7.13**
4. I have sent a sexual comment or sexual picture to an online stranger	**13.8%** (n = 89)	8.3% (n = 24)	5.74*

(Note: * = p < .05, ** = p < .01, *** = p < .001; † = medium effect, †† = large effect)

Females in SA reported higher engagement in sexting behaviours than males for the individual sexting behaviours. No gender differences were found in the UK. Sexting generally increased with age, especially between early and middle adolescence (see Table 6.10, next page).

Table 6.9: General Conduct Risk Items According to Gender and Age of Adolescents in SA and the UK (Chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Conduct Risks (General)	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. I spend more time with friends online than friends in real life	12.7% (n = 36)	16.1% (n = 64)	1.54	13.5% (n = 21)	15.6% (n = 64)	12.8% (n = 15)	0.77	28% (n= 30)	23.3% (n= 47)	1.17	24.1% (n= 21)	27.8% (n= 42)	18.6% (n= 13)	5.95
2. I usually trust people I meet on the internet	6.0% (n = 17)	**23.1%** (n = 92)	36.05*** †	5.2% (n = 8)	**23.4%** (n = 96)	4.2% (n = 5)	42.56*** †	19.6% (n= 21)	14.4% (n= 29)	1.42	14.0% (n= 12)	19.9% (n= 30)	10.0% (n= 7)	6.42
3. I am more comfortable talking to people online than in real life	25.2% (n = 71)	**42.3%** (n = 168)	21.24***	29.2% (n = 45)	**41.0%** (n = 167)	22.9% (n = 27)	16.33***	42.3% (n= 44)	33.3% (n= 67)	2.44	31.0% (n= 26)	38.0% (n= 57)	38.6% (n= 27)	1.87
4. I would give out personal information about myself online to win a prize	3.2% (n = 9)	**15.6%** (n = 62)	27.05*** †	2.6% (n = 4)	**15.2%** (n = 62)	4.2% (n = 5)	24.80***	8.4% (n= 9)	4.0% (n= 8)	3.12	2.3% (n= 2)	5.3% (n= 8)	8.7% (n= 6)	3.84
5. I do not check my security and privacy settings on my social networking profile or websites I visit.	32.5% (n = 91)	28.4% (n = 113)	1.32	35.1% (n = 53)	29.3% (n = 120)	26.3% (n = 31)	2.73	18.9% (n= 20)	9.5% (n= 19)	5.58	12.8% (n=11)	14.0% (n= 21)	10.0% (n= 7)	2.44
6. I often talk to strangers on the internet for fun.	14.2% (n = 40)	11.1% (n = 44)	1.49	7.2% (n = 11)	13.9% (n = 57)	13.7% (n = 16)	4.87	15.9% (n= 17)	8.5% (n= 17)	3.96	5.7% (n= 5)	12.7% (n= 19)	12.9% (n= 9)	6.89
7. I have sent my picture to someone I met on the internet.	14.1% (n = 40)	18.0% (n = 72)	1.85	11.8% (n = 18)	15.9% (n = 65)	**24.4%** (n = 29)	7.99*	17.9% (n= 19)	10.9% (n= 22)	2.98	10.5% (n= 9)	12.7% (n= 19)	17.1% (n= 12)	5.72
8. It's easier to make friends online than friends in real life.	26.9% (n = 76)	24.1% (n = 96)	0.69	24.2% (n = 37)	26.6% (n = 109)	21.8% (n = 26)	1.21	37.7% (n= 40)	29.0% (n= 58)	2.43	27.6% (n= 24)	31.8% (n= 47)	37.1% (n= 26)	4.30

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Table 6.10: Sexting Behaviours According to Gender and Age of Adolescents in SA and the UK (Chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Conduct Risks (Sexting)	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. I have received a sexual comment or sexual picture from someone I know	33.5% (n= 81)	**50.0%** (n= 176)	15.96***	34.7% (n = 50)	46.5% (n = 167)	44.0% (n = 40)	5.85	21.6% (n= 19)	28.6% (n= 50)	1.47	20.0% (n= 16)	26.0% (n= 33)	35.7% (n= 20)	4.21
2. I have received a sexual comment or sexual picture from an online stranger	24.3% (n= 62)	**34.6%** (n= 131)	7.57**	20.4% (n = 30)	30.6% (n = 118)	**44.6%** (n = 45)	16.49***	25.3% (n= 23)	29.5% (n= 52)	0.54	15.2% (n=12)	**38.2%** (n= 50)	22.8% (n= 13)	13.88** †
3. I have sent a sexual comment or sexual picture to someone I know	18.2% (n= 47)	**31.1%** (n= 118)	13.20***	10.8% (n = 16)	**30.7%** (n = 119)	29.1% (n = 30)	22.88***	11.0% (n= 10)	13.7% (n= 25)	0.39	6.2% (n= 5)	13.6% (n= 18)	19.7% (n= 12)	5.86
4. I have sent a sexual comment or sexual picture to an online stranger	6.0% (n= 16)	**19.2%** (n= 73)	22.78***	4.7% (n = 7)	**17.2%** (n = 66)	14.3% (n = 16)	14.11**	4.2% (n= 4)	5.9% (n= 11)	0.36	2.5% (n= 2)	5.8% (n= 8)	7.9% (n= 5)	2.18

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

6.4.1.2 Contact Risks: Contact with Strangers and Online Relationships

Although there was no significant difference between adolescents in having spoken to at least one online stranger whom they have only talked to online and never met face-to-face, SA adolescents were significantly more likely to have met online strangers in person (see Table 6.11, next page). Of those who met an online stranger in person, half of UK adolescents (48.8%, n = 39) and three in five SA adolescents (59.0%, n = 160) did not tell anyone about the meeting prior to it taking place. Open-ended questions provided further insights by showing that adolescents largely had a positive experience during these meetings. The meeting was often described as positive when the individual they met was the same person they had presented themselves as online either in personality or appearance. In such cases adolescents felt as if they were meeting someone they already knew, as shown in the following open-ended question quotes.

> *"It was just like meeting any other person for the first time, just that I knew a bit of background about the person. We are still friends to this day."* - -(Adolescent, SA)

> *"Normally your first impression of a person is the way they look, then you get to know them. Online you get to know them first then it doesn't matter how they look. It feels like even though you've never physically met the person, you already know him or her."* - (Adolescent, SA)

Many encounters involved meeting online individuals who were mutual friends with someone adolescents already knew:

> *"The person that I met for the first time face-to-face was a friend of my friend, so I knew that I could know that the person wasn't pretending to be someone they're not. I knew I'd be safe."* - (Adolescent, SA)

Those who did not have a positive experience meeting an online stranger in person described the meeting as "weird" or "awkward", with the most likely description in the open-ended questions being that the person did not look like the person in their online profile picture or that they were older than they had let on. Apart from appearance, some adolescents also expressed disappointment that the person was not the same in terms of personality or communication style, for example: "They were far more quiet and less outspoken" (Female, SA).

The depth of relationships being formed online is evident in the proportion of adolescents who had experienced romantic relationships that either remained online or that began in an online space and progressed offline. SA adolescents were significantly more likely to have had this experience compared to UK adolescents (see Table 6.11).

Table 6.11: Contact Risks: Differences between Adolescents in SA and the UK (Chi-square)

Contact Risks	**Adolescents**		x^2
	SA	**UK**	
1. I have known at least one person online whom I have only talked to online and never met face to face.	55.9% (n = 381)	61.0% (n = 188)	2.25
2. I have met face to face with someone that I first met on the internet.	**39.9%** (n = 269)	27.0% (n = 83)	15.07***
3. I have been romantically involved with someone online.	**28.0%** (n = 187)	14.8% (n = 44)	19.51***
4. I have been romantically involved with someone in real life that I first met online.	**38.5%** (n = 256)	19.0% (n = 56)	35.47***

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

No gender or age differences were found in the UK sample. While there was no gender difference in talking to online strangers or meeting them face-to-face in the SA sample either, findings showed that females in SA were significantly more likely to have formed romantic relationships online. Contact risks were also found to increase with age in the SA sample, particularly between early and middle adolescence (see Table 6.12, next page).

Table 6.12: Contact Risks According to Gender and Age of Adolescents in SA and the UK (Chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender			Adolescence			x^2
Contact Risks	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. I have known at least one person online whom I have only talked to online and never met face to face.	55.1% (n = 156)	56.5% (n = 225)	0.13	40.0% (n = 62)	59.0% (n = 242)	**66.4%** (n = 77)	22.69***	67.0% (n = 71)	57.9% (n = 117)	2.40	56.3% (n = 49)	63.3% (n = 95)	61.4% (n = 43)	1.15
2. I have met face to face with someone that I first met on the internet.	41.3% (n = 116)	38.8% (n = 153)	0.41	40.9% (n = 63)	36.5% (n = 148)	**50.0%** (n = 58)	6.91*	33.3% (n = 35)	23.8% (n = 48)	3.21	23.3% (n = 20)	24.7% (n = 37)	35.7% (n = 25)	3.73
3. I have been romantically involved with someone online.	23.4% (n = 64)	**31.1%** (n = 123)	4.86*	15.6% (n = 24)	**31.9%** (n = 129)	**30.6%** (n = 34)	15.27***	14.7% (n = 15)	14.9% (n = 29)	0.001	10.7% (n = 9)	16.8% (n = 24)	14.5% (n = 10)	1.57
4. I have been romantically involved with someone in real life that I first met online.	33.6% (n = 92)	**41.9%** (n = 164)	4.76*	25.3% (n = 39)	**41.6%** (n = 166)	**45.5%** (n = 51)	15.26***	20.8% (n = 21)	18.0% (n = 35)	0.33	11.9% (n = 10)	20.6% (n = 29)	23.2% (n = 16)	3.79

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Table 6.13: Content risks according to Gender and Age of SA and UK Adolescents (Chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Content Risks	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. I have seen sexual pictures or videos on the internet	**79.3%** (n = 214)	72.3% (n = 237)	3.92*	69.3% (n = 042)	76.3% (n = 258)	80.9% (n = 89)	4.94	71.8% (n= 74)	63.2% (n= 120)	2.25	47.6% (n= 40)	68.8% (n= 97)	**83.6%** (n= 56)	22.4*** †
2. I have seen violent pictures or videos of physical fights, accidents, or abusive behaviour towards humans or animals	82.1% (n= 225)	85.5% (n= 266)	1.26	84.6% (n = 126)	83.6% (n = 270)	84.1% (n = 95)	0.07	73.1% (n= 76)	80.1% (n= 153)	1.92	65.9% (n= 56)	81.0% (n= 115)	**85.1%** (n= 57)	9.79**
3. I have seen pictures or videos or read information that is mean or hateful to people of a different race, ethnicity or religion	70.0% (n = 191)	71.0% (n = 281)	0.08	72.5% (n = 111)	66.5% (n = 268)	**82.3%** (n = 93)	10.98**	73.8% (n= 76)	82.1% (n= 156)	2.80	69.9% (n= 58)	81.0% (n= 115)	**86.6%** (n= 58)	6.84*
4. I have seen information on the internet that supports extreme diets and eating habits	71.2% (n= 195)	**85.9%** (n = 341)	21.88***	77.1% (n = 118)	81.5% (n = 330)	77.9% (n = 88)	1.65	69.2% (n = 72)	**80.1%** (n = 153)	4.40*	74.1% (n = 63)	76.8% (n = 109)	77.6% (n = 52)	0.30
5. I have seen information on the internet about suicide or hurting oneself	47.1% (n = 128)	**72.3%** (n= 224)	38.49*** †	51.7% (n = 77)	**63.9%** (n = 205)	**62.5%** (n = 70)	6.56*	60.2% (n= 62)	**81.4%** (n= 153)	15.48***	65.5% (n= 55)	78.4% (n= 109)	74.6% (n= 50)	4.57

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

6.4.1.3 Content Risks: Exposure to Harmful or Inappropriate Content

Analyses of the individual items showed some differences between risky content exposure in the two countries. Adolescents in SA were significantly more likely to have seen sexual and violent online content as well as information that supports extreme diets or eating habits compared to UK adolescents. In contrast, UK adolescents reported higher exposure to hateful content as well as information about suicide and self-harm (see Table 6.14).

Table 6.14: Content Risks: Differences Between Adolescents in SA and the UK (Chi-square)

Content Risks	Adolescents		
	SA	UK	x^2
1. I have seen sexual pictures or videos on the internet	**75.4%** (n = 451)	66.2% (n = 194)	8.34**
2. I have seen violent pictures or videos of physical fights, accidents, or abusive behaviour towards humans or animals	**83.9%** (n = 491)	77.6% (n = 229)	5.24*
3. I have seen pictures or videos or read information that is mean or hateful to people of a different race, ethnicity or religion	70.6% (n = 472)	**79.2%** (n = 232)	7.73**
4. I have seen information on the internet that supports extreme diets and eating habits	79.9% (n = 536)	76.3% (n = 225)	1.60
5. I have seen information on the internet about suicide or hurting oneself	60.5% (n = 352)	**73.9%** (n = 215)	15.31***

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

As shown in Table 6.13 (see previous page), females in both countries had higher exposure to online information that supports extreme diets and eating habits as well as information about suicide and self-harm. In SA, males were more likely to have seen sexual images or videos online than females. Where age differences were found, exposure tended to increase with age, particularly from early to middle adolescence. In both countries exposure to hateful online content increased with age. Exposure to information about suicide and self-harm increased with age in SA and exposure to sexual and violent content increased with age in the UK.

6.4.2 Differences Between Adolescent Reports and Parent Perceptions

Parents were asked about their child's online risk behaviour only in relation to the eight general conduct risk items, since it was unlikely that parents would be aware of

the detailed online risk behaviours of adolescents such as sexting, contact and relationships with strangers online or content risk exposure. Findings for the general conduct risk items were significant for each item in SA and all but two of the items in the UK. Parents generally underestimated their child's online risk behaviours (see Table 6.15). For example, adolescents were more likely to state that they felt more comfortable talking to people online than in real life and that it is easier to make friends online than in real life compared to parent perceptions. More adolescents also talked to strangers on the internet for fun and had sent their picture to someone online compared to parent perceptions. Although parents tended to underestimate their child's conduct risk behaviours for some of the items, more parents believed that their child did not check their security and privacy settings on their social networking profile and that their child spends more time with friends online than friends in real life compared to adolescent self-reports. Thus, these items reflected the same pattern in each country.

Table 6.15: Online Risk Behaviours: Differences Between Adolescent Reports and Parent Perceptions in SA and the UK (Chi-square)

	SA			UK		
General Online Risks	**Adolescent Reports**	**Parent Perceptions**	x^2	**Adolescent Reports**	**Parent Perceptions**	x^2
1. I spend more time with friends online than friends in real life	14.7% (n = 100)	**33.3%** (n= 74)	38.57*** †	24.9% (n = 77)	**33.3%** (n= 42)	12.91**
2. I usually trust people I meet on the internet	**16.0%** (n = 109)	9.1% (n= 20)	13.11**	16.2% (n = 50)	16.7% (n= 21)	1.24
3. I am more comfortable talking to people online than in real life	**35.2%** (n = 239)	11.4% (n= 25)	47.70*** †	**36.4%** (n = 111)	15.9% (n= 20)	37.13***
4. I would give out personal information online to win a prize	**10.5%**[27] (n = 71)	10.0% (n= 22)	30.90***	5.5% (n = 17)	**10.3%** (n= 13)	7.58*
5. I do not check my security and privacy settings	11.2% (n = 76)	**20.9%** (n= 46)	123.72*** ††	12.7% (n = 39)	**17.5%** (n= 22)	56.15*** †
6. I often talk to strangers on the internet for fun.	**12.4%** (n = 84)	2.7% (n= 6)	19.08***	11.0% (n = 34)	7.1% (n= 9)	2.37
7. I have sent my picture to someone I met on the internet.	**16.4%** (n = 112)	4.1% (n= 9)	50.47*** †	**13.4%** (n = 41)	3.2% (n= 4)	11.87**
8. It's easier to make friends online than friends in real life.	**25.2%** (n = 172)	4.5% (n= 10)	63.23*** †	**32.0%** (n = 98)	7.9% (n= 10)	51.95*** †

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

[27] The item 'I would give out personal information online to win a prize' is significant as a higher proportion of the remaining adolescent participants indicated that they disagreed with the statement and would not give out personal information about themselves online to win a prize, while the remaining parent participants indicated that they were unsure about whether their child would do so.

6.5. CYBERAGGRESSION AND CYBERBULLYING

6.5.1 Adolescents: Gender, Age and Country Trends

Most adolescents in both countries had ever had at least one online victimisation experience (SA: 79.5%, n = 548; UK: 68.8%, n = 220), which was significantly higher in SA than the UK, x^2(1, N = 1107) = 16.00, p = .001, φ = .12. A total of 43.0% (n = 117) of UK adolescents and 34.4% (n = 221) of SA adolescent defined their online experience as cyberbullying. The difference in cyberbullying experiences between the two countries was significant, albeit with a small effect size, x^2(1, N = 915) = 6.13, p = .013, φ = -.08. With regard to online perpetration, adolescents in SA were far more likely to admit to having perpetrated at least one of the eight behaviours listed (72.5%, n= 464) compared to UK adolescents (47.5%, n = 152), x^2(1, N = 1202) = 25.69, p = .001, φ = .15.

The most common victimisation experience in both countries was being called a hurtful name or receiving a hurtful or rude comments or messages. Adolescents in the UK were significantly more likely to have had their picture posted online to embarrass them, while adolescents in SA were more likely to have been impersonated online. For perpetration, SA adolescents were more likely to report having called someone a hurtful name or posted a hurtful message, and to have sent a message as if it were coming from another person (i.e. pretending to be someone else), while UK adolescents were more likely to have forwarded or posted a private message someone sent them (see Table 6.16, next page).

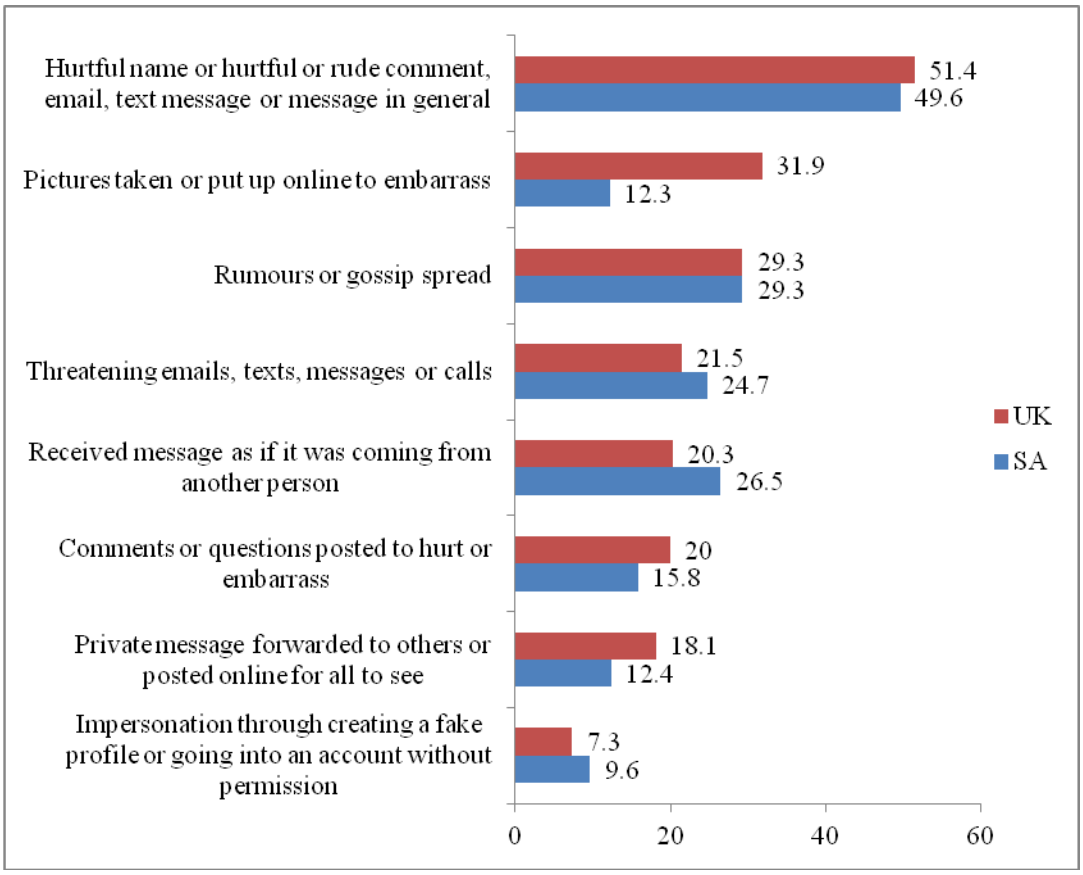
Table 6.16: Online Victimisation and Perpetration Experiences: Differences between Adolescents in SA and the UK (Chi-square)

Negative Online Interactions		Adolescents SA	Adolescents UK	x^2
1. Hurtful name or hurtful or rude comment, email, text message or message in general	Victim	71.2% (n = 464)	69.9% (n = 193)	0.14
	Perpetrator	**58.8%** (n = 377)	41.1% (n = 109)	23.57***
2. Rumours or gossip spread	Victim	44.3% (n = 289)	47.8% (n = 132)	0.96
	Perpetrator	21.8% (n = 140)	17.8% (n = 47)	1.86
3. Threatening emails, texts, messages or calls	Victim	37.9% (n = 247)	34.9% (n = 96)	0.76
	Perpetrator	11.1% (n = 71)	9.1% (n = 24)	0.78
4. Private message forwarded to others or posted online for all to see	Victim	27.1% (n = 177)	31.4% (n = 87)	1.77
	Perpetrator	12.8% (n = 82)	**19.8%** (n = 52)	7.14**
5. Picture put up online to embarrass	Victim	26.3% (n = 172)	**53.6%** (n = 148)	63.95*** †
	Perpetrator	15.3% (n = 88)	**21.8%** (n = 57)	5.47*
6. Impersonation through creating a fake profile or going into an account without permission	Victim	**24.0%** (n = 156)	17.8% (n = 49)	4.28*
	Perpetrator	**12.2%** (n = 78)	7.6% (n = 20)	4.09*
7. Received a message as if it was coming from another person/ Sent a message as if it was coming from another person	Victim	45.6% (n = 298)	43.5% (n = 120)	0.37
	Perpetrator	**31.2%** (n = 200)	19.2% (n = 50)	13.22***
8. Comments or questions posted to hurt or embarrass	Victim	30.6% (n = 199)	33.5% (n = 92)	0.75
	Perpetrator	9.1% (n = 58)	7.7% (n = 20)	0.50

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

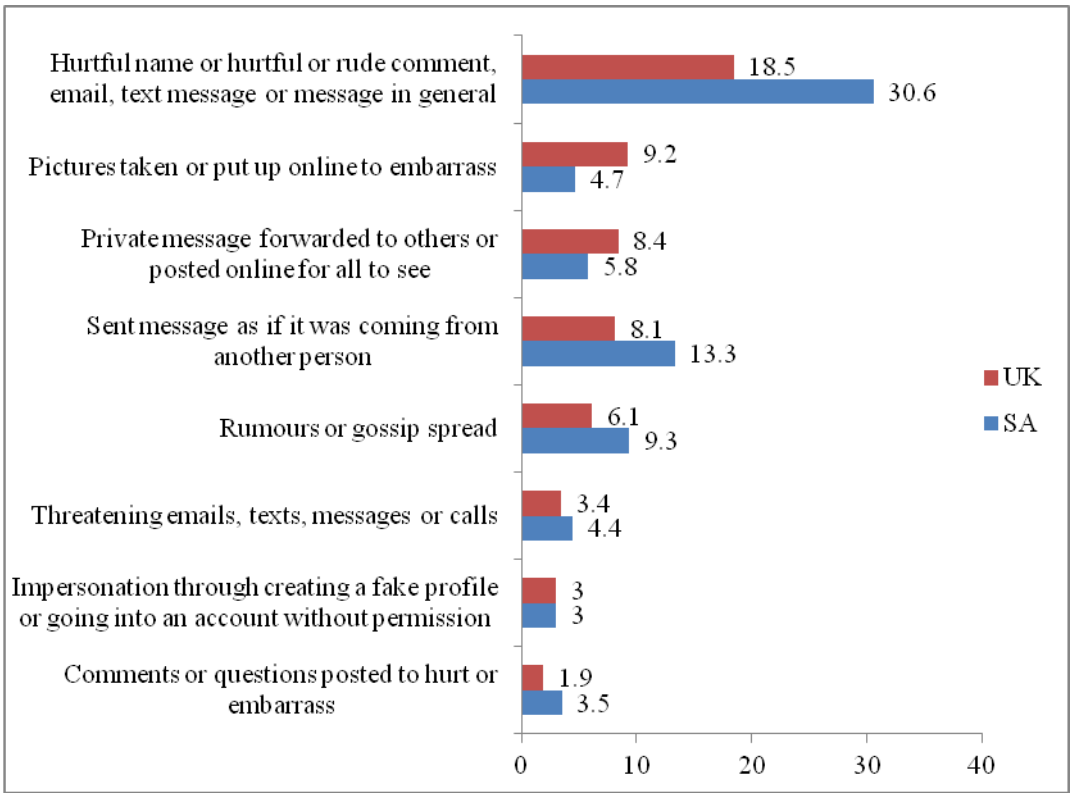
Many of the online victimisation and perpetration experiences were not a one-off experience, indicating some repetition (see Figure 6.8, next page). Adolescents in both countries reported similar rates of repeated victimisation, although adolescents in the UK were more likely to have had pictures taken or put up online to embarrass them, $x^2(1, N = 929) = 50.50$, $p < .001$, $\varphi = .23$. Adolescents in the UK were also more likely to have had private messages forwarded to others or posted online for all to see which indicated a very small effect, $x^2(1, N = 930) = 5.12$, $p = .024$, $\varphi = .07$, and to have received messages as if they were coming from one person but they later found out were written by someone else, $x^2(1, N = 929) = 4.02$, $p = .045$, $\varphi = .07$.

Figure 6.8: Proportion of Adolescents who experienced Online Victimisation more than once (%)



SA adolescents were more likely to report perpetrating these behaviours more than once (see Figure 6.9, next page), particularly in relation to having called someone a hurtful name, $x^2(1, N = 903) = 6.64$, $p = .01$, $\varphi = .09$, and sending a message as if it were coming from another person, $x^2(1, N = 901) = 4.79$, $p = .029$, $\varphi = .07$. Adolescents in the UK were significantly more likely to have taken or put up a picture of someone online to embarrass them, $x^2(1, N = 930) = 5.12$, $p = .024$, $\varphi = .07$.

Figure 6.9: Proportion of Adolescents who engaged in Online Perpetration more than once (%)



In SA, 6 of the 8 online victimisation behaviours and one of the 8 perpetration behaviours were significant for gender (see Table 6.17, p. 188). In each case females were more likely than males to experience the behaviours that included being called a hurtful name, receiving threats as well as having rumours spread about them. The perpetration behaviour that emerged as significant was sending messages as if they were coming from another person, which was also higher among females. In the UK, however, only one behaviour emerged as significant between the genders, namely, females were more likely to have had a picture taken or put up online to embarrass them than male adolescents. Females in SA were significantly more likely to have experienced cyberbullying (41.2%, n = 157) compared to males (24.4%, n = 64), $x^2(1, N = 643) = 19.38$, $p < .001$, $\varphi = .17$. In the UK, gender differences in cyberbullying experiences were non-significant.

Few age related findings emerged, which generally showed that behaviours either increased with age of adolescents or peaked at middle adolescence. For example, in both SA and the UK, receiving threats increased significantly from early to middle adolescence. In SA, threatening others was highest at late adolescence. Additional findings showed that having comments or questions put up online to embarrass them increased from early to middle adolescence in SA. In the UK, forwarding private messages to others peaked at middle adolescence, while receiving messages as if they were coming from someone else gradually increased with age of adolescents (see Table 6.17, next page). Age differences in relation to cyberbullying experiences were non-significant in both countries.

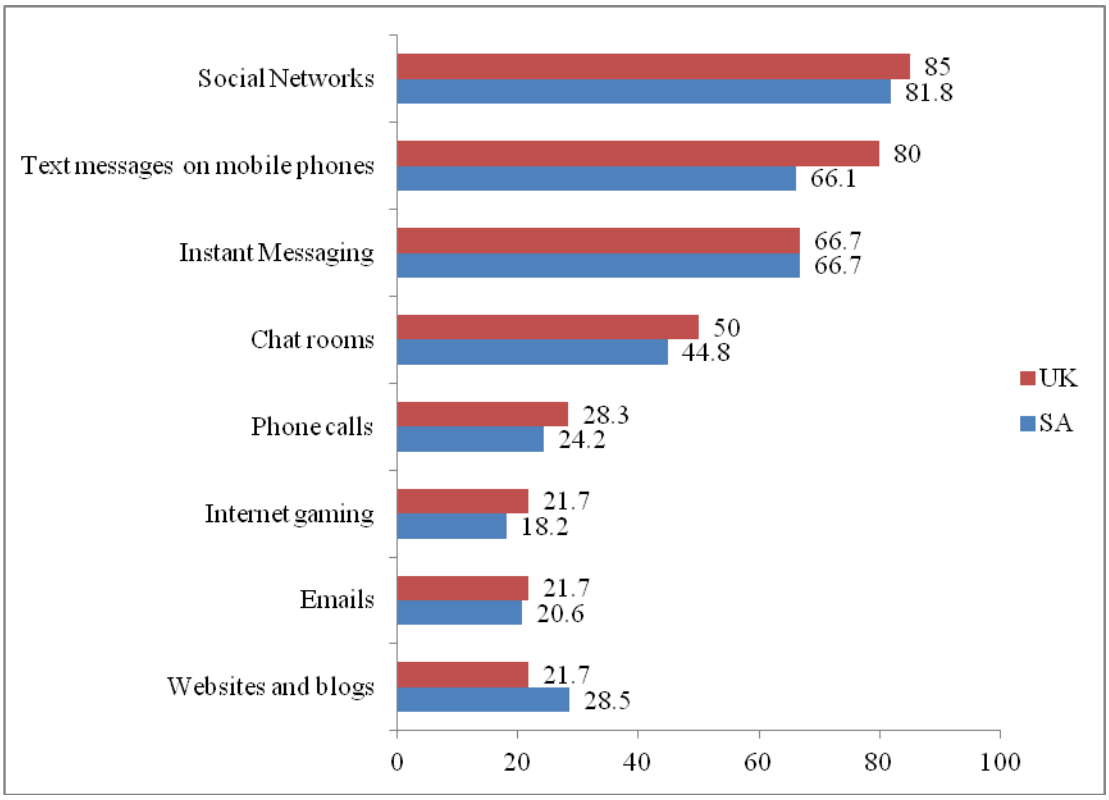
Table 6.17: Online Victimisation Experiences and Perpetration Behaviours According to Adolescent Gender and Age in SA and the UK (Chi-square)

		SA							UK						
		Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Cyberaggression		**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. Hurtful name or hurtful or rude comment, email, text message or message in general	Victim	56.0% (n = 149)	**81.6%** (n = 315)	50.26*** †	63.8% (n = 95)	73.7% (n = 291)	72.2% (n = 78)	5.25	66.3% (n= 63)	71.8% (n= 130)	0.90	63.5% (n= 54)	73.1% (n= 95)	71.7% (n= 43)	2.35
	Perpetrator	59.8% (n = 153)	58.2% (n = 224)	0.16	59.5% (n = 88)	55.8% (n = 217)	**69.2%** (n = 72)	6.16*	46.2% (n= 42)	38.5% (n= 67)	1.44	39.0% (n= 32)	43.4% (n= 53)	39.3% (n= 24)	0.50
2. Rumours or gossip spread	Victim	32.0% (n= 85)	**52.8%** (n= 204)	27.86***	34.5% (n = 51)	**48.5%** (n = 192)	42.6% (n = 46)	8.75*	42.1% (n= 40)	50.8% (n= 92)	1.90	40.0% (n= 34)	48.8% (n= 63)	55.7% (n= 34)	3.67
	Perpetrator	19.9% (n = 51)	23.1% (n = 89)	0.92	20.9% (n = 31)	20.6% (n = 80)	27.9% (n = 29)	2.67	19.8% (n= 18)	16.8% (n= 29)	0.37	14.6% (n= 12)	20.7% (n= 25)	16.4% (n= 10)	1.32
3. Threatening emails, texts, messages or calls	Victim	24.5% (n= 65)	**47.2%** (n= 182)	34.15***	22.8% (n = 34)	41.4% (n = 163)	**46.3%** (n = 50)	19.64***	29.5% (n= 28)	37.8% (n= 68)	1.89	23.5% (n= 20)	**40.3%** (n= 52)	38.3% (n= 23)	6.83*
	Perpetrator	13.7% (n = 35)	9.4% (n = 36)	2.94	7.4% (n = 11)	9.0% (n = 35)	**24.0%** (n = 25)	21.30**	8.9% (n= 8)	9.2% (n= 16)	0.01	9.8% (n= 8)	9.9% (n= 12)	6.7% (n= 4)	0.57
4. Private message forwarded to others or posted online for all to see	Victim	24.4% (n= 65)	28.9% (n= 112)	1.62	22.8% (n = 34)	28.0% (n = 111)	29.6% (n = 32)	1.91	27.4% (n= 26)	33.5% (n= 61)	1.10	27.1% (n= 23)	**38.5%** (n= 50)	21.3% (n= 13)	6.66*
	Perpetrator	13.3% (n = 34)	12.5% (n = 48)	0.08	7.4% (n = 11)	13.9% (n = 54)	16.3% (n = 17)	5.42	13.5% (n= 12)	23.0% (n= 40)	3.35	17.3% (n= 14)	21.5% (n= 26)	19.7% (n= 12)	0.54
5. Picture put up online to embarrass	Victim	20.4% (n= 54)	**30.4%** (n= 118)	8.17**	20.8% (n = 31)	27.0% (n = 107)	31.5% (n = 34)	3.92	44.2% (n= 42)	**58.6%** (n= 106)	5.16*	52.9% (n= 45)	54.3% (n= 70)	52.5% (n= 32)	0.07
	Perpetrator	12.9% (n = 33)	16.9% (n = 65)	1.89	12.2% (n = 18)	17.0% (n = 66)	13.5% (n = 14)	2.23	16.5% (n= 15)	24.6% (n= 42)	2.28	23.5% (n= 19)	20.7% (n= 25)	21.7% (n= 13)	0.22
6. Impersonation through creating a fake profile or going into an account without permission	Victim	20.1% (n= 53)	26.7% (n= 103)	3.75	18.9% (n = 28)	24.8% (n = 98)	28.0% (n = 30)	3.19	17.0% (n= 16)	18.2% (n= 33)	0.06	9.4% (n= 8)	17.1% (n= 22)	**30.0%** (n= 18)	10.35**
	Perpetrator	14.8% (n = 38)	10.4% (n = 40)	2.85	10.8% (n = 16)	12.6% (n = 49)	12.5% (n = 13)	0.33	11.0% (n= 10)	5.8% (n= 10)	2.31	6.1% (n= 5)	9.1% (n= 11)	6.6% (n= 4)	0.74
7. Received a message as if it was coming from another person/ Sent a message as if it was coming from another person	Victim	37.4% (n= 99)	**51.3%** (n= 199)	12.32***	45.0% (n = 67)	43.9% (n = 174)	52.8% (n = 57)	2.71	38.9% (n= 37)	45.9% (n= 83)	1.21	34.1% (n= 29)	47.7% (n= 62)	46.7% (n= 28)	4.22
	Perpetrator	25.0% (n = 64)	**35.5%** (n = 136)	7.64**	33.1% (n = 49)	31.1% (n = 121)	28.8% (n = 30)	0.52	16.5% (n= 15)	20.7% (n= 35)	0.68	14.8% (n= 12)	22.9% (n= 27)	18.0% (n= 11)	2.09
8. Comments or questions posted to hurt or embarrass	Victim	20.0% (n= 53)	**37.8%** (n= 146)	25.52***	19.5% (n = 29)	**33.8%** (n = 133)	**34.3%** (n = 37)	11.24**	28.4% (n= 27)	36.1% (n= 65)	1.65	29.4% (n= 25)	33.3% (n= 43)	38.3% (n= 23)	1.26
	Perpetrator	8.7% (n = 22)	9.4% (n = 36)	0.11	10.2% (n = 15)	7.8% (n = 30)	12.5% (n = 13)	2.46	10.2% (n= 9)	6.4% (n= 11)	1.23	7.3% (n= 6)	6.8% (n= 8)	9.8% (n= 6)	0.55

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Reflecting on cyberbullying more generally, adolescents in both countries had similar views on where cyberbullying was most likely to occur in an online space. Social networking sites were reported as the most likely location for cyberbullying, along with text messages sent to mobile phones and instant messages (see Figure 6.10).

Figure 6.10: Adolescent Perceptions About where Cyberbullying is most likely to happen to someone their age: Differences between SA and the UK (%)



Findings from the open-ended questions, which asked adolescents what someone their age was most likely to be cyberbullied about, indicated that individuals were most likely to be cyberbullied about their (i) appearance, (ii) nature of online expression, posts and pictures, (iii) sexuality and sexual orientation, as well as (iv) other markers of identity. Aspects encompassing each of these, as described by adolescents in both countries, are listed in Table 6.18 (next page).

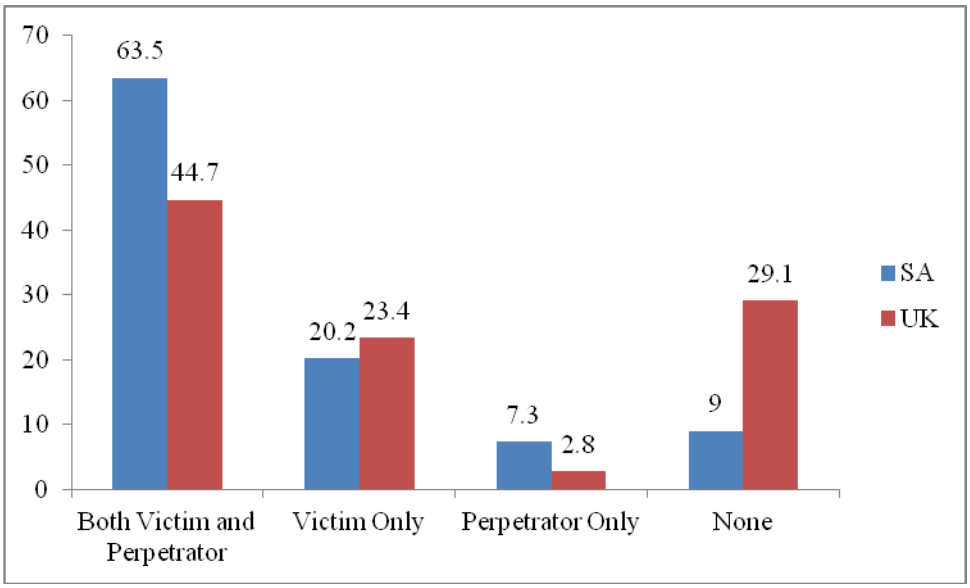
Table 6.18: What Adolescents Reported Someone their Age was Most Likely to be Cyberbullied About

Category	Aspects mentioned by adolescents
(i) Appearance	- Looks (e.g. facial features, skin problems) - Weight and body shape - Height (too tall or too short) - The way they dress
(ii) Nature of online expression, posts and pictures	- What they post and the words they use - What they share online - Embarrassing pictures - The way they pose when taking pictures - Effects and edits used on pictures (e.g. using too many) - Posting too many selfies
(iii) Sexuality and sexual orientation	- Being promiscuous - Being a virgin - LGBT (e.g. 'Being gay') - Relationship status or who they are dating
(iv) Other markers of their identity	- Race - Religion - Gender - Financial status (e.g. not having the latest gadgets, area they live in) - Intelligence (being too smart or having the lowest scores)

(Note: All aspects described in column 2 are terms used by adolescents)

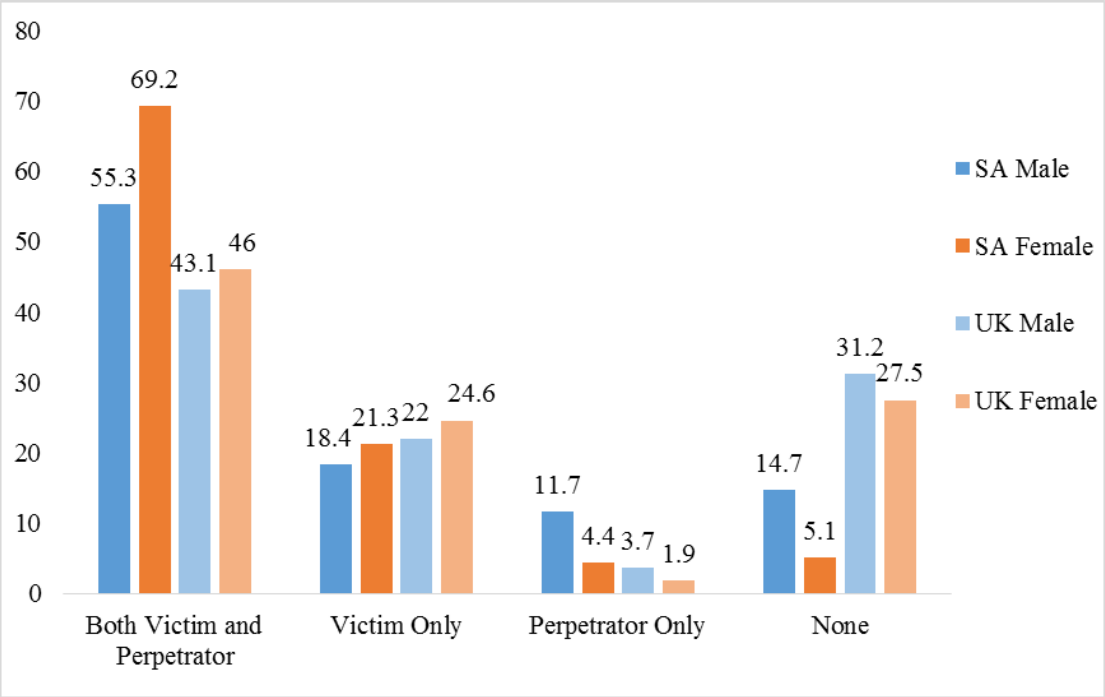
Using the overall scores indicating the number of behaviours participants engaged in or experienced, finding showed that online victimisation and perpetration behaviours were linked, with a strong correlation between the variables for adolescents overall (r = .53, $p < .001$). When examining the roles adolescents played in negative online experiences, i.e. using categories (i) victim only, (ii) perpetrator only, (iii) both victim and perpetrator or (iv) none, chi-square analyses showed that adolescents in both countries were most likely to be both a victim and perpetrator. However, while most adolescents indicated being both a victim and perpetrator, UK adolescents were significantly more likely to report being a victim only or to not have had any involvement in cyberaggression, while SA adolescents were also more likely to admit being a perpetrator only (see Figure 6.11, next page). These differences between the countries were significant with a large effect, $x^2(3, N = 975) = 76.96$, $p < .001$, $V = .28$.

Figure 6.11: Role in Cyberaggression: Differences Between Adolescents in SA and the UK (%)



Gender analyses indicated that females in SA were more likely to have been both a victim and perpetrator compared to males and that males were more likely to a be a perpetrator only compared to females. Males in SA were also more likely not to have had any involvement in cyberaggression than females. These differences are significant with a medium effect, $x^2(3)= 32.80$, $p < .001$, $V = .23$. No gender differences were found in adolescents' roles in cyberaggression in the UK (see Figure 6.12, next page). Age was non-significant in both countries.

Figure 6.12: Adolescents' Roles in Cyberaggression According to Gender of Adolescents (%)



The severity of some of these online experiences are underscored by the reported emotional responses by adolescents. These were similar among adolescents in both countries (see Table 6.19).

Table 6.19: Emotional Experiences as a Result of Online Victimisation: Differences Between Adolescents in SA and the UK (Chi-square)

Emotional Experiences	Adolescents		x^2
	SA	UK	
Been hurt or made to feel sad about something someone said to you on the internet	37% (n= 240)	41.3% (n = 114)	1.49
Been scared or worried about something someone said to you on the internet.	33.6% (n= 217)	31.9% (n = 88)	0.27
Did not want to go to school on some days because of something someone did or said to you on the internet.	22.7% (n= 147)	27.7% (n = 76)	2.64

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Females were more likely to report emotional distress as a result of an online experience (see Table 6.20, next page).

Table 6.20: Emotional Experiences as a Result of Online Victimisation According to Gender and Age of SA and UK Adolescents (Chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Emotional Experiences	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. Been hurt or made to feel sad about something someone said to you on the internet	20.3% (n = 53)	**42.4%** (n = 160)	34.93***	24.5% (n = 36)	**36.3%** (n = 142)	**36.4%** (n = 39)	7.15*	22.3% (n = 21)	**51.1%** (n = 93)	21.15***	37.6% (n = 32)	45.7% (n = 59)	36.1% (n = 22)	2.20
2. Been scared or worried about something someone said to you on the internet.	22.1% (n = 58)	**47.3%** (n = 182)	42.62*** †	28.4% (n = 42)	38.8% (n = 152)	**42.6%** (n = 46)	6.70*	25.3% (n = 24)	35.4% (n = 64)	2.92	30.6% (n = 26)	33.1% (n = 43)	30.0% (n = 18)	0.24
3. Did not want to go to school on some days because of something someone did or said to you on the internet.	14.6% (n = 38)	**28.2%** (n = 109)	16.59***	24.5% (n = 36)	20.6% (n = 81)	28.0% (n = 30)	2.98	16.8% (n = 16)	**33.5%** (n = 60)	8.61**	25.9% (n = 22)	27.3% (n = 35)	30.0% (n = 18)	0.30

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

As shown in Table 6.20, females in SA were twice as likely as males to report each of the emotional experiences, while females in the UK were twice as likely as males to report having been made to feel hurt or sad or not wanting to go to school on some days because of an online victimisation experience. In SA, emotional experiences also generally tended to increase with age while in the UK no age related differences were found.

Further insights into emotional experiences from online victimisation and cyberbullying were provided by the open-ended questions, where many adolescents described feeling "worthless", "empty" and "not normal". Categorisation of the open-ended responses indicated that adolescents were most likely to report feelings of (i) sadness and depression, (ii) low self-esteem, and (iii) feelings of rejection and isolation. Many of these emotions were paired with (iv) thoughts of suicide and self-harm behaviours, although these were sometimes described in isolation. Descriptions provided by adolescents in line with these categories are shown in Table 6.21 (next page).

Table 6.21: Emotions Experienced by Adolescents as a Result of Online Victimisation: Quotes from Open-ended Questions

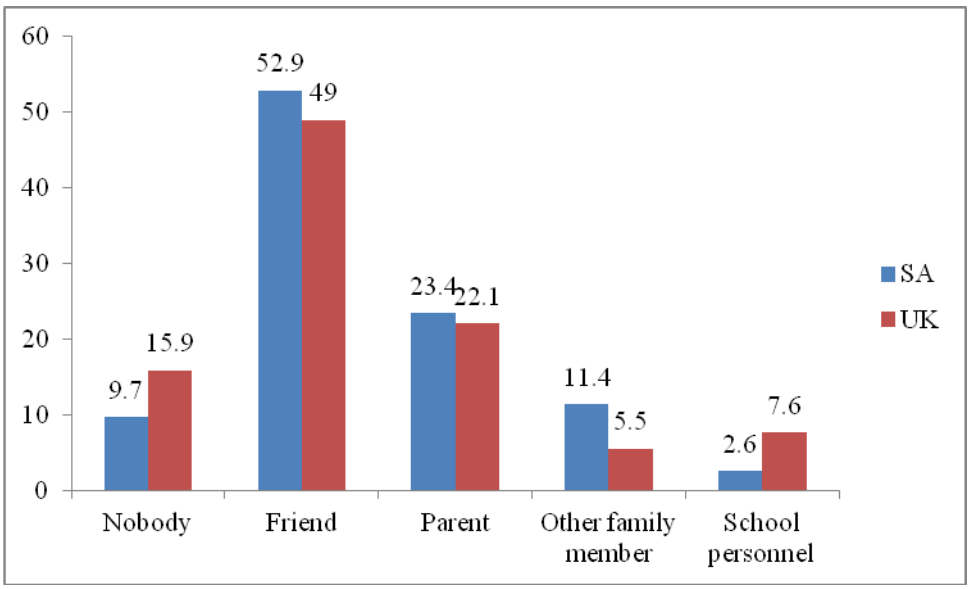
Category	Quotes - SA	Quotes - UK
(i) sadness and depression	"I wanted to die, I cried and cried and cried." "I felt sad and, weirdly enough, almost suicidal." "I was crying every day because of what they said and they were in my class." "Really sad and depressed. I didn't want to go to school and just wanted to hide from the bully."	"I felt hurt, sad and embarrassed." "I had depression but I try to hide it."
(ii) low self-esteem	"It made me insecure." "It made me feel less than what I am, useless, ugly, unwanted, unloved, hated, stupid, angry, like I was nothing, just some piece of dirt they scraped off their shoe." "It made me feel junk. I felt like just because I'm darker I'll never be pretty. I wanted to kill myself and wanted plastic surgery." "It made me feel bad about myself and that I can't do anything about it. It made me feel like I don't have self-confidence." "It made me feel broken, sore, lousy, disgusting, worthless, ugly, not talented, stupid, useless, waste of time and so so much more."	"It made me feel bad about the way I look." "It made me feel bad about myself and worthless and like I didn't want to be here."
(iii) feelings of rejection and isolation	"It made me feel ugly that nobody liked me. It made me cut." "It made me feel totally worthless. It felt like I was not good enough for Earth." "It made me feel hurt and like I didn't belong in this world." "It hurt, like I had no reason to be a part of this world anymore. I felt like everyone was against me, like I had no one." "They posted comments about me and really made me feel ugly and stupid. They made me hurt myself." "I was very upset knowing what people thought of me. I was hurt, sad and ashamed. So hurt and unwanted that I was too ill to go to school the next day." "You feel hopeless and alone." "It made me feel alone and worthless." "It made me feel useless and I have no purpose. I hated the way I looked and didn't go out, I just stayed at home."	"It felt like everyone hated me and I wasn't wanted by anyone." "It made me feel alone, ashamed of who I am and I felt shunned by society." "It made me feel like I did not want to come to school because I always thought that everyone would look at me when I pass them and then I'd be able to hear them talk about me which did happen. That was the worst day of my life." "Upset and insecure about myself, as though I didn't belong." "It made me feel as though I did not belong in the world anymore." "It made me feel really small and worthless and like no one in the world would care or love me. It hurt me a lot and I can't forget about what she said."
(iv) thoughts of suicide and self-harm behaviours	"I felt like cutting myself, laying in the middle of the road and dying." "I just wanted to die." "It made me think I did not deserve or want to live life anymore." "I felt like I should do what they told me to do and kill myself."	"It made me feel like killing myself." "I attempted suicide and have cut myself multiple times." "I felt suicidal."

(Note: The quotes presented in the table are a sample of quotes from adolescents and serve as examples for the key categories of emotions expressed by adolescents in the two countries).

Although less common, some adolescents also reported that the incident had no emotional impact on them. For example: “I felt normal because I knew that the person was jealous of me” (Female, SA); “`I did not feel offended because I don’t care what people say about me online” (Female, UK); “I didn’t care at all because I knew the person was being childish” (Male, SA) ; and “This person is someone behind a computer screen, they can’t hurt me and neither can their comment” (Female, UK). Although these may potentially have been less severe cases of cyberaggression and cyberbullying, this provides evidence that some adolescents showed more resilience towards these online experiences.

Of those who considered their experiences to be cyberbullying, the vast majority of adolescents knew who their perpetrator was (SA: 82.3%, n = 182; UK: 79.5%, n = 93), suggesting that victimisation largely did not occur anonymously. Adolescents were also most likely to tell a friend about their cyberbullying experience, followed by a parent or another family member. A very low proportion of adolescents informed school personnel about the cyberbullying experience. Roughly one in ten adolescents in both countries told nobody about the experience (see Figure 6.13).

Figure 6.13: Person Adolescents were most likely to tell about cyberbullying incidents in SA and the UK (%)



Apart from victimisation experiences, most adolescents reported having ever witnessed someone else being cyberbullied (SA: 71.3%, n= 458; UK: 77.4%, n = 209), of whom 14.4% (n= 92) in SA and 11.1% (n = 30) in the UK said that they witness cyberbullying 'often' or 'very often' while using the internet. Most adolescents in the UK (71.6%, n = 73) reported that they knew someone like a friend or sibling who had ever been cyberbullied. In contrast, a much lower proportion of SA adolescents reported the same (38.7%, n= 247) and were more likely to report that they did not know if someone they knew had ever been cyberbullied.

6.5.2. Differences Between Adolescent Reports and Parent Perceptions

Parents in SA significantly underestimated the emotional distress reported by adolescents as a result of online victimisation. Parents in the UK had an accurate perception about whether their child had ever felt hurt or sad about an online experience and whether they had ever felt scared or worried about an online experience. However, they significantly underestimated whether their child had not wanted to go to school on some days because of an online experience (see Table 6.22).

Table 6.22: Emotional Experiences As A Result Of Online Victimisation: Differences Between Adolescent Reports And Parent Perceptions in SA and the UK (Chi-square)

	SA			UK		
Emotional Experiences	**Adolescent Reports**	**Parent Perceptions**	x^2	**Adolescent Reports**	**Parent Perceptions**	x^2
1. Been hurt or made to feel sad about something someone said to you on the internet	**37%** (n= 240)	10.3% (n= 21)	29.8***	41.3% (n = 114)	40.0% (n= 40)	0.05
2. Been scared or worried about something someone said to you on the internet.	**33.6%** (n= 217)	8.7% (n= 18)	30.36***	31.9% (n = 88)	28.7% (n= 29)	0.35
3. Did not want to go to school on some days because of something someone did or said to you on the internet.	**22.7%** (n= 147)	6.4% (n= 13)	20.56***	**27.7%** (n = 76)	13.0% (n= 14)	9.39**

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Parents also underestimated their children's experiences for each one of the eight victimisation and perpetration behaviours in SA. In the UK, parents had an accurate perception about their child having been called a hurtful name and having had rumours spread about them online. UK parents also had an accurate perception about their child's perpetration behaviours for calling someone a hurtful name, threatening someone online as well as posting comments or questions about someone online to embarrass them. However, for the other victimisation and perpetration behaviours, parents in the UK underestimated their child's experiences and involvement (see Table 6.23, next page).

Apart from underestimating these experiences, a fairly high proportion of parents also admitted that they simply did not know if their child had been victimised. Parents in SA were much more likely to report not knowing compared to parents in the UK (see Figure 6.14).

Figure 6.14: Proportion of Parents in SA and the UK who admitted that they did not know if their child had experienced Online Victimisation (%)

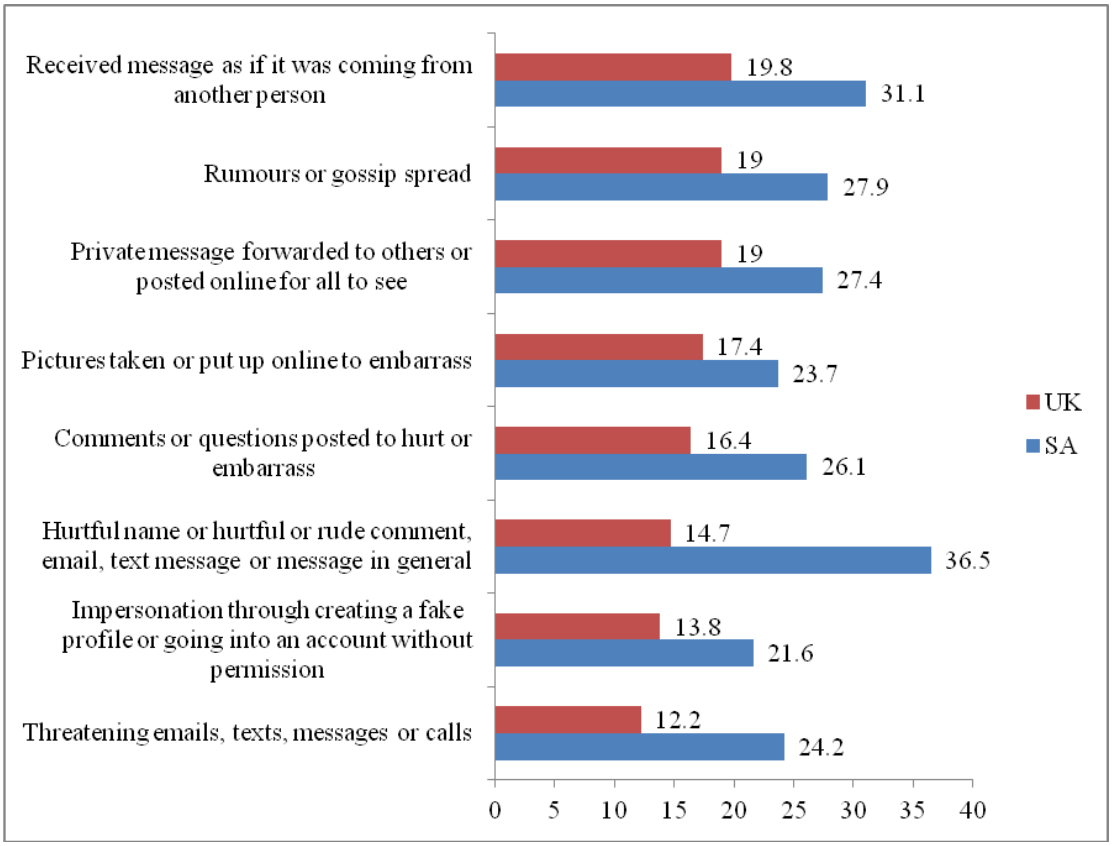


Table 6.23: Online Victimisation Experiences and Perpetration Behaviours: Differences between Adolescent Reports and Parent Perceptions in SA and the UK (Chi-square)

Cyberaggression		SA			UK		
		Adolescent Reports	**Parent Perceptions**	x^2	**Adolescent Reports**	**Parent Perceptions**	x^2
1. Hurtful name or hurtful or rude comment, email, text message or message in general	Victim	**71.2%** (n= 464)	26.0% (n= 54)	44.83***	69.9% (n = 193)	63.6% (n= 63)	1.33
	Perpetrator	**58.8%** (n= 377)	20.7% (n= 29)	66.82*** †	41.1% (n = 109)	32.0% (n = 31)	2.52
2. Rumours or gossip spread	Victim	**44.3%** (n= 289)	12.5% (n= 26)	37.25***	47.8% (n = 132)	40.4% (n= 38)	1.55
	Perpetrator	**21.8%** (n= 140)	5.2% (n= 8)	22.98***	**17.8%** (n = 47)	7.2% (n = 7)	6.25*
3. Threatening emails, texts, messages or calls	Victim	**37.9%** (n= 247)	7.2% (n= 15)	46.25***	**34.9%** (n = 96)	22.8% (n= 23)	5.03*
	Perpetrator	**11.1%** (n= 71)	2.4% (n= 4)	11.59**	9.1% (n = 24)	5.7% (n = 6)	1.17
4. Private message forwarded to others or posted online for all to see	Victim	**27.1%** (n= 179)	7.2% (n= 15)	19.9***	**31.4%** (n = 87)	14.9% (n= 14)	9.66**
	Perpetrator	**12.8%** (n= 82)	2.4% (n= 4)	14.71***	**19.8%** (n = 52)	6.1% (n = 6)	10.05**
5. Picture put up online to embarrass	Victim	**26.3%** (n= 172)	4.8% (n= 10)	29.27***	**53.6%** (n = 148)	22.1% (n= 21)	28.31***
	Perpetrator	**15.3%** (n= 98)	0.6% (n= 1)	27.1***	**21.8%** (n = 57)	8.1% (n = 8)	9.10**
6. Impersonation through creating a fake profile or going into an account without permission	Victim	**24.0%** (n= 156)	5.8% (n= 12)	22.0***	**17.8%** (n = 49)	9.0% (n= 9)	4.36*
	Perpetrator	**12.2%** (n= 78)	1.1% (n= 2)	18.77***	**7.6%** (n = 20)	2.0% (n = 2)	4.04*
7. Received a message as if it was coming from another person/ Sent a message as if it was coming from another person	Victim	**45.6%** (n= 298)	7.6% (n= 16)	58.28*** †	**43.5%** (n = 120)	14.0% (n= 13)	26.26***
	Perpetrator	**31.2%** (n= 78)	3.7% (n= 6)	51.27*** †	**19.2%** (n = 50)	8.1% (n = 8)	6.58*
8. Comments or questions posted to hurt or embarrass	Victim	**30.6%** (n= 199)	7.2% (n= 15)	27.35***	**33.5%** (n = 92)	21.6% (n= 21)	4.73*
	Perpetrator	**9.1%** (n= 58)	2.4% (n= 4)	8.31**	7.7% (n = 20)	5.9% (n = 6)	0.32

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Adolescents' roles in cyberaggression and parent perceptions of their child's roles, i.e. (i) victim only, (ii) perpetrator only, (iii) both victim and perpetrator or (iv) none, indicated that parents highly underestimated that their child was both a victim and perpetrator. The difference between adolescent report and parent perceptions was significant for both SA: x^2 (3, N = 669) = 48.72, $p < .001$, $V = .27$, and the UK: x^2 (3, N = 450) = 15.16, $p = .002$, $V = .18$, both indicating a medium effect. These findings are shown in Figures 6.15 and 6.16.

Figure 6.15: Adolescents' Roles in Negative Online Interactions: Differences Between Adolescent Reports and Parent Perceptions in SA (%)

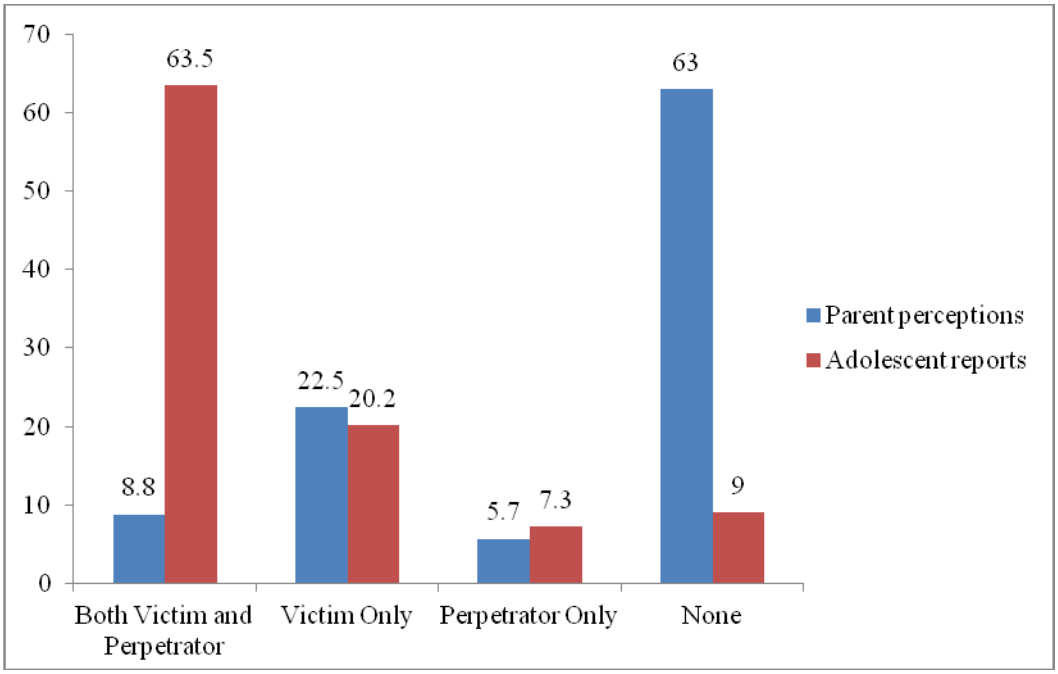
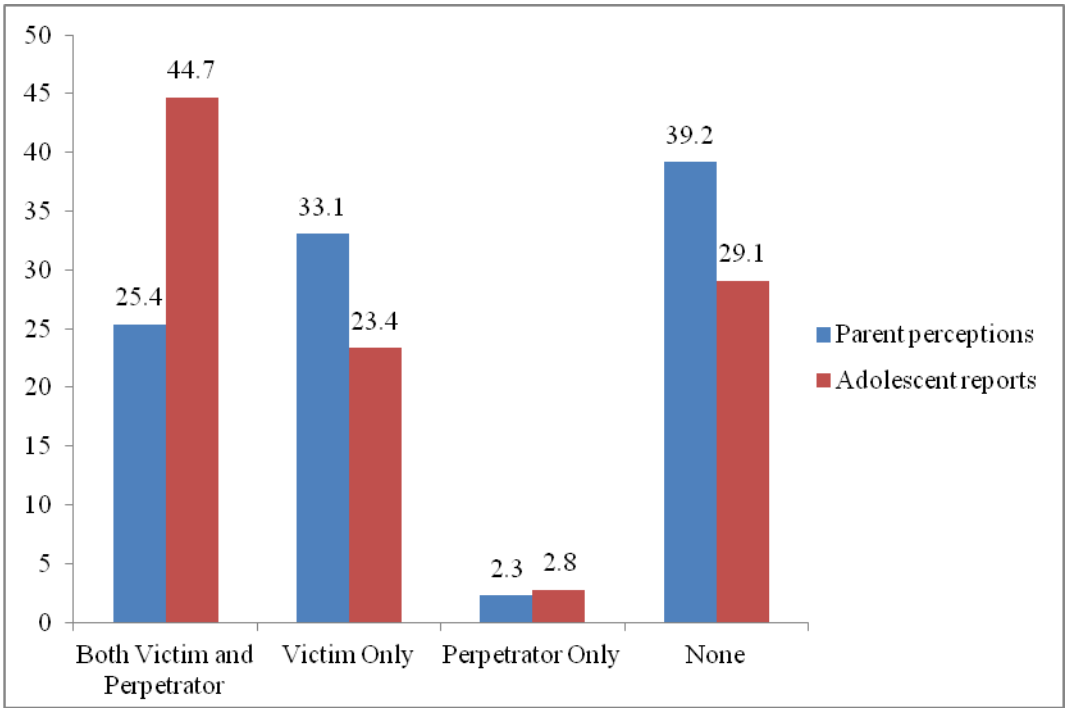


Figure 6.16: Adolescents' Roles in Negative Online Interactions: Differences Between Adolescent Reports and Parent Perceptions in the UK (%)



6.6. PARENTAL MEDIATION

6.6.1 General Parental Mediation

6.6.1.1 Adolescents: Gender, Age and Country Trends

Items looking at perceived technological skills indicated that four in five adolescents (SA: 80.6%, n = 550; UK: 81.6%, n = 257) reported that adults in their home ask them for help to do certain tasks for them on the computer, tablet or mobile phone. When asked to describe some of these tasks, most of the open-ended responses included basic tasks such as assisting parents in attaching or uploading files to emails, searching for information online, creating tables in Word documents, copying and pasting text as well as printing. Adolescents were also tasked with troubleshooting internet or mobile phone issues for adults in their home, installing or uninstalling programs, downloading applications and fixing any potential wifi problems in the home. Not surprisingly then, the vast majority of adolescents (SA: 87.1%, n = 594; UK: 90.6%, n = 286) perceived their technological skills to be 'good' or 'very good' compared to their parents' technological skills.

In terms of rules, adolescents in SA were more likely to report the existence of rules in their home about ICTs compared to UK adolescents. UK adolescents were more likely to state that most of the time they can do whatever they want online without anyone checking up on them and to think that adults should not be involved in what teenagers are doing online. Adolescents in SA were more likely to believe that adults in general do not know what teenagers are doing online, although a similar proportion of adolescents in both countries (roughly two-thirds) believed that their own parents had a good understanding of the programs and activities they engage in online (see Table 6.24).

Table 6.24: Perceptions around Parental Mediation: Differences between Adolescents in SA and the UK (Chi-square)

Perceptions Around Parental Mediation	Adolescents		x^2
	SA	UK	
1. In general, adults do not know what teenagers are doing on the internet, computer, tablet or mobile phones.	**77.4%** (n = 489)	61.8% (n = 162)	24.17***
2. My parents have a good understanding of the programs and activities I use/do on the internet, computer, tablet or mobile phones.	64.2% (n = 405)	68.1% (n = 177)	4.93
3. Most of the time I can do whatever I want online without anyone checking up on me.	61.0% (n = 384)	**66.4%** (n = 172)	6.89*
4. Adults should not be involved in what teenagers do on the internet, computer, tablet or mobile phones.	18.9% (n = 119)	**29.0%** (n = 75)	21.11***
5. I have rules I have to follow at home when using the internet, computer, tablet or mobile phone.	**45.6%** (n = 287)	38.2% (n = 99)	7.39*

(Note: * = $p < .05$, **= $p < .01$, ***= $p < .001$; † = medium effect, †† = large effect)

Adolescents expressed similar views about parental mediation irrespective of gender and age. However, females in SA were significantly more likely to believe that adults do not know what teenagers are doing online, while males in the UK were more likely to believe that adults should not be involved in adolescent online behaviours. Although no age differences were found in SA, older adolescents in the UK were more likely to state that, most of the time, they can do whatever they want online without anyone checking up on them. Moreover, reported rules at home about the use of online media decreased with age in the UK sample (see Table 6.25, next page).

Table 6.25: Perceptions around Parental Mediation According to Adolescent Gender and Age in SA and the UK (Chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Perceptions Around Parental Mediation	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. In general, adults do not know what teenagers are doing on the internet, computer, tablet or mobile phones.	68.8% (n = 172)	**83.0%** (n = 317)	17.37***	72.0% (n = 103)	78.8% (n = 305)	79.4% (n = 81)	3.03	91.0% (n = 61)	84.9% (n = 101)	1.45	92.7% (n = 51)	87.4% (n = 76)	79.5% (n = 35)	3.79
2. My parents have a good understanding of the programs and activities I use/do on the internet, computer, tablet or mobile phones.	61.4% (n = 153)	66.0% (n = 252)	1.34	63.6% (n = 91)	66.1% (n = 256)	57.4% (n = 58)	2.68	74.2% (n = 49)	84.8% (n = 128)	3.38	85.0% (n = 51)	77.7% (n = 80)	85.2% (n = 46)	1.98
3. Most of the time I can do whatever I want online without anyone checking up on me.	59.1% (n = 146)	62.1% (n = 238)	0.58	52.8% (n = 75)	62.4% (n = 241)	66.7% (n = 68)	5.71	89.5% (n = 68)	80.0% (n = 104)	3.12	77.0% (n = 47)	81.7% (n = 76)	**94.2%** (n = 49)	6.40*
4. Adults should not be involved in what teenagers do on the internet, computer, tablet or mobile phones.	22.0% (n = 54)	17.0% (n = 65)	2.42	16.8% (n = 24)	19.0% (n = 73)	21.6% (n = 22)	0.89	**66.1%** (n = 39)	34.3% (n = 36)	15.41***	49.0% (n = 25)	38.4% (n = 28)	55.0% (n = 22)	3.21
5. I have rules I have to follow at home when using the internet, computer, tablet or mobile phone.	46.2% (n = 115)	45.1% (n = 172)	0.07	50.7% (n = 72)	42.2% (n = 163)	51.0% (n = 52)	4.45	42.3% (n = 33)	48.2% (n = 66)	0.69	**57.8%** (n = 37)	46.5% (n = 47)	30.0% (n = 15)	8.76*

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

6.6.1.2 Differences between Adolescent Reports and Parent Perceptions

In general findings showed that parents overestimated the extent of parental mediation in the home relative to adolescent reports. Adolescents were significantly more likely to report that most of the time they can do whatever they want online without anyone checking up on them, and less likely to report that there are rules at home regarding the use of technology compared to parents. Although in both countries most parents believed that adults generally do not know what adolescents are doing online, the vast majority believed that they had a good understanding of their child's online activities. In both countries parents were less likely to believe that adults should not be involved in what teenagers do online (see Table 6.26, next page).

An additional item asked about the consequences to rules about ICTs. While most parents in both countries (SA: 71.9%, n= 143; UK: 89.4%, n= 93) stated that there were consequences for breaking rules about technology in their home, far fewer adolescents reported the same. In SA, only 34.7% (n= 215) of adolescents said that there were consequences for breaking the rules, $x^2(1, N = 833) = 31.72$, $p < .001$, $\varphi = .20$. In the UK, 63.9% (n = 161) of adolescents reported consequences for breaking rules about ICTs, x^2 (1, N = 356) = 23.48, $p < .001$, $\varphi = -.26$. Differences between adolescents and parents in both countries indicated a medium effect.

Table 6.26: Perceptions around Parental mediation: Differences between Adolescent Reports and Parent Perceptions in SA and the UK (Chi-square)

	SA			UK		
Perceptions Around Parental Mediation	**Adolescent Reports**	**Parent Perceptions**	x^2	**Adolescent Reports**	**Parent Perceptions**	x^2
1. In general, adults do not know what teenagers are doing on the internet, computer, tablet or mobile phones.	77.4% (n = 489)	**84.6%** (n = 170)	7.61*	61.8% (n = 162)	68.5% (n = 74)	2.32
2. My parents have a good understanding of the programs and activities I use/do on the internet, computer, tablet or mobile phones.	64.2% (n = 405)	**73.9%** (n = 147)	6.39*	68.1% (n = 177)	75.9% (n = 82)	2.88
3. Most of the time I can do whatever I want online without anyone checking up on me.	**61.0%** (n = 384)	38.2% (n = 76)	82.41*** †	**66.4%** (n = 172)	42.6% (n = 46)	52.74*** †
4. Adults should not be involved in what teenagers do on the internet, computer, tablet or mobile phones.	**18.9%**[28] (n = 119)	14.0% (n = 28)	74.82*** †	**29.0%** (n = 75)	11.1% (n = 12)	68.60*** †
5. I have rules I have to follow at home when using the internet, computer, tablet or mobile phone.	45.6% (n = 287)	**86.5%** (n = 173)	103.01*** ††	38.2% (n = 99)	**76.9%** (n = 83)	48.92*** †

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

6.6.2 Restrictive Mediation

6.6.2.1 Adolescents: Gender, Age and Country Trends

SA adolescents were more likely to report having to ask permission when they can be online, how long they can be online, which websites they can go on, when they want to send an email as well as permission to use a chat room (see Table 6.27, next page).

Findings for the individual restrictive mediation items showed that gender differences in the SA sample were significant only for how long adolescents could be online, which websites they can visit and whether they had to ask for permission to send or share pictures or videos online. In each case, SA males were more likely to report this restrictive mediation in the home compared to females (see Table 6.28, p. 207).

[28] The item 'Adults should not be involved in what teenagers do on the internet, computer, tablet or mobile phones' is significant as a higher proportion of the remaining adolescent participants indicated that they were neutral or unsure about the statement, while a higher proportion of the remaining parents disagreed with the statement.

Table 6.27: Restrictive Mediation: Differences Between Adolescents in SA and the UK (Chi-square)

Restrictive Mediation: Have to ask permission…	Adolescents		x^2
	SA	UK	
1. About when I can be online	**37.5%** (n = 236)	23.1% (n = 60)	17.15***
2. About how long I can be online	**32.4%** (n = 204)	23.5% (n = 61)	7.08**
3.About which websites I can visit	31.0% (n = 195)	25.4% (n = 66)	2.80
4. To use instant messaging program	17.9% (n = 112)	17.4% (n = 45)	0.03
5. To send an email	**22.7%** (n = 143)	15.4% (n = 40)	6.08*
6. To use a social networking site	**22.8%** (n = 143)	16.9% (n = 44)	3.87*
7. To send or share a picture or video online	24.3% (n = 153)	20.8% (n = 54)	1.24
8. To use a chat room	**25.0%** (n = 154)	18.7% (n = 48)	4.08*
9. To download music or movies	28.7% (n = 180)	31.9% (n = 83)	0.91

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

Age was significant for asking permission to send an email as well as permission to use social networking sites, with those in early adolescence reporting higher restrictive mediation than those in middle and late adolescence. No gender differences were found in the UK and, where significant age differences emerged, restrictive mediation strategies decreased with age (see Table 6.28, next page).

Table 6.28: Restrictive Mediation According to Gender and Age of SA and UK Adolescents (chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Restrictive Mediation: Have to ask permission…	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. About when I can be online	40.8% (n = 102)	35.3% (n = 134)	1.97	43.0% (n = 61)	35.0% (n = 135)	39.2% (n = 40)	2.98	23.9% (n = 21)	22.7% (n = 39)	0.05	**35.0%** (n = 28)	19.3% (n = 23)	14.8% (n = 9)	9.73**
2. About how long I can be online	**37.3%** (n = 93)	29.2% (n = 111)	4.55*	38.7% (n = 55)	28.1% (n = 108)	40.2% (n = 41)	8.75	28.4% (n = 25)	20.9% (n = 36)	1.81	**32.5%** (n = 26)	23.5% (n = 28)	11.5% (n = 7)	8.52*
3. About which websites I can visit	**36.5%** (n = 91)	27.4% (n = 104)	5.92*	38.7% (n = 55)	28.8% (n = 111)	28.4% (n = 29)	5.13	21.6% (n = 19)	27.3% (n = 47)	1.01	**35.0%** (n = 28)	25.2% (n = 30)	13.1% (n = 8)	8.76*
4. To use instant messaging program	21.4% (n = 53)	15.6% (n = 59)	3.33	23.2% (n = 33)	15.5% (n = 59)	19.6% (n = 20)	4.46	13.8% (n = 12)	19.3% (n = 33)	1.21	21.5% (n = 17)	17.6% (n = 21)	11.7% (n = 7)	2.31
5. To send an email	26.5% (n = 66)	20.3% (n = 77)	3.34	**31.7%** (n = 45)	19.0% (n = 73)	24.5% (n = 25)	9.79**	18.2% (n = 16)	14.0% (n = 24)	0.80	20.0% (n = 16)	14.3% (n = 17)	11.5% (n = 7)	2.14
6. To use a social networking site	24.9% (n = 62)	21.5% (n = 81)	0.99	**30.5%** (n = 43)	21.4% (n = 82)	17.8% (n= 18)	6.61*	14.8% (n = 13)	18.0% (n = 31)	0.44	22.5% (n = 18)	16.0% (n = 19)	11.5% (n= 7)	3.14
7. To send or share a picture or video online	**29.3%** (n = 73)	21.1% (n = 80)	5.58*	29.6% (n = 42)	22.1% (n = 85)	25.5% (n = 26)	3.26	18.2% (n = 16)	22.2% (n = 38)	0.58	**27.5%** (n = 22)	21.8% (n = 26)	10.0% (n = 6)	6.50*
8. To use a chat room	24.5% (n = 60)	25.3% (n = 94)	0.06	30.0% (n = 42)	23.1% (n = 87)	25.0% (n = 25)	2.56	15.9% (n = 14)	20.1% (n = 34)	0.68	25.3% (n = 20)	18.6% (n = 22)	10.0% (n = 6)	5.27
9. To download music or movies	31.7% (n = 79)	26.7% (n = 101)	1.84	26.1% (n = 37)	28.1% (n = 108)	34.7% (n = 35)	2.30	31.8% (n = 28)	32.0% (n = 55)	0.001	**47.5%** (n = 38)	28.6% (n = 34)	18.0% (n = 11)	14.96**

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

Table 6.31: Technical Mediation According to Gender and Age of SA and UK Adolescents (chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Technical Mediation	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. Installed a program to prevent you getting junk mail or viruses	49.6% (n = 124)	48.4% (n = 183)	0.09	40.1% (n = 57)	53.1% (n = 204)	45.1% (n = 46)	8.78	55.1% (n = 38)	65.7% (n = 88)	2.17	60.0% (n = 36)	65.2% (n = 58)	59.3% (n = 32)	0.65
2. Installed a service to track the websites and programs you go on	**16.4%** (n = 41)	7.7% (n = 29)	11.59**	10.6% (n = 15)	10.7% (n = 41)	13.7% (n = 14)	1.06	24.6% (n = 16)	17.7% (n = 20)	1.22	**30.0%** (n = 15)	22.4% (n = 17)	7.7% (n = 4)	8.24*
3. Installed a program that blocks or filters certain websites	15.7% (n = 39)	13.8% (n = 52)	0.85	9.2% (n = 13)	15.4% (n = 59)	18.6% (n = 19)	5.74	37.7% (n = 26)	35.4% (n = 45)	0.10	44.8% (n = 26)	32.9% (n = 28)	32.1% (n = 17)	2.65
4. Installed a parenting feature which limits the time you can spend online	6.8% (n = 17)	4.2% (n = 16)	3.29	4.9% (n = 7)	5.5% (n = 21)	5.0% (n = 5)	8.90	18.3% (n = 13)	10.7% (n = 14)	2.31	20.7% (n = 12)	11.4% (n = 10)	8.9% (n = 5)	3.94

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

6.6.2.2 Differences between Adolescent Reports and Parent Perceptions

Parents also reported significantly higher restrictive mediation strategies compared to adolescent reports as shown in Table 6.29, and all of the items were found to be significant between the two samples in both countries.

Table 6.29: Restrictive Mediation: Differences Between Adolescent Reports and Parent Perceptions in SA and the UK (Chi-square)

	SA			UK		
Restrictive Mediation: Have to ask permission…	**Adolescent Reports**	**Parent Perceptions**	x^2	**Adolescent Reports**	**Parent Perceptions**	x^2
1. About when I can be online	37.5% (n = 236)	**67.5%** (n = 135)	55.42*** †	23.1% (n = 60)	**54.4%** (n = 56)	33.22*** †
2. About how long I can be online	32.4% (n = 204)	**72.7%** (n = 144)	100.32*** †	23.5% (n = 61)	**60.2%** (n = 62)	44.43*** †
3.About which websites I can visit	31.0% (n = 195)	**73.6%** (n = 145)	112.42*** †	25.4% (n = 66)	**68.0%** (n = 70)	57.08*** †
4. To use instant messaging program	17.9% (n = 112)	**54.9%** (n = 107)	103.68*** †	17.4% (n = 45)	**44.6%** (n = 45)	28.40*** †
5. To send an email	22.7% (n = 143)	**58.6%** (n = 116)	89.99*** †	15.4% (n = 40)	**42.7%** (n = 44)	30.99*** †
6. To use a social networking site	22.8% (n = 143)	**51.5%** (n = 102)	59.19*** †	16.9% (n = 44)	**43.1%** (n = 44)	27.36*** †
7. To send or share a picture or video online	24.3% (n = 153)	**59.7%** (n = 117)	84.91*** †	20.8% (n = 54)	**58.3%** (n = 60)	47.79*** †
8. To use a chat room	25.0% (n = 154)	**66.5%** (n = 129)	111.75*** †	18.7% (n = 48)	**54.5%** (n = 55)	45.29*** †
9. To download music or movies	28.7% (n = 180)	**62.3%** (n = 124)	73.34*** †	31.9% (n = 83)	**72.8%** (n = 75)	50.19*** †

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

6.6.3 Technical Mediation

6.6.3.1 Adolescents: Gender, Age and Country Trends

Adolescents in the UK were significantly more likely to report that parents had installed blocking or filtering software at home as well as parenting features that limit the time they can spend online than SA adolescents (see Table 6.30, next page).

Table 6.30: Technical Mediation: Differences Between Adolescents in SA and the UK (Chi-square)

Technical Mediation	Adolescents		x^2
	SA	UK	
1. Installed a program to prevent you getting junk mail or viruses	48.9% (n= 307)	50.4% (n = 126)	0.89
2. Installed a service to track the websites and programs you go on	11.1% (n = 70)	14.4% (n = 36)	3.32
3. Installed a program that blocks or filter certain websites	14.5% (n = 91)	**28.4%** (n = 71)	22.98***
4. Installed a parenting feature which limits the time you can spend online	5.3% (n = 33)	**10.8%** (n = 27)	10.28**

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† large effect)

In SA, no age differences were found but males were more likely to report that a parent or other adult in their home had installed a service to track the websites or programs they have been on compared to females. In the UK, no gender differences emerged but having programs installed that tracks websites adolescents have been on decreased with age (see Table 6.31, p. 207).

6.6.3.2 Differences between Adolescent Reports and Parent Perceptions

Parents in both countries reported higher technical mediation compared to adolescents for all items. However, installing a program to prevent adolescents getting junk mail or viruses was higher among the adolescent sample compared to parent reports in SA (see Table 6.32, next page).

Table 6.32: Technical Mediation: Differences Between Adolescent Reports and Parent Perceptions in SA and the UK (Chi-square)

	SA			UK		
Technical Mediation	**Adolescent Reports**	**Parent Perceptions**	x^2	**Adolescent Reports**	**Parent Perceptions**	x^2
1. Installed a program to prevent you getting junk mail or viruses	**48.9%**[29] (n= 307)	45.0% (n = 86)	45.22***	50.4% (n = 126)	**75.0%** (n = 75)	18.88***
2. Installed a service to track the websites and programs you go on	11.1% (n = 70)	**20.9%** (n = 40)	42.53***	14.4% (n = 36)	**32.0%** (n = 32)	30.25***
3. Installed a program that blocks or filter certain websites	14.5% (n = 91)	**27.2%** (n = 52)	37.05***	28.4% (n = 71)	**59.4%** (n = 60)	30.95***
4. Installed a parenting feature which limits the time you can spend online	5.3% (n = 33)	**8.5%** (n = 16)	18.49***	10.8% (n = 27)	**24.2%** (n = 16)	21.53***

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$)

6.6.4 Monitoring

6.6.4.1 Adolescents: Gender, Age and Country Trends

Although monitoring strategies were fairly similar between the countries, UK adolescents were more likely to report that parents looked over their shoulder to see what they were doing online, while SA adolescents were slightly more likely to report that parents told them which friends or contacts they could add (see Table 6.33).

Table 6.33: Monitoring: Differences Between Adolescents in SA and the UK (Chi-square)

Monitoring	**Adolescents**		x^2
	SA	**UK**	
1. Checked your social networking profile, email account, or read your messages in an instant messaging program, chat room, or text messages	28.5% (n = 178)	26.0% (n = 65)	3.14
2. Looked over your shoulder, stayed in the same room or generally kept an eye on you when you are using the internet	27.9% (n = 174)	**31.5%** (n = 78)	6.89*
3. Checked which websites you have been on	21.7% (n = 135)	18.9% (n = 47)	1.10
4. Told you which friends or contacts you can add to a social networking profile or instant messaging program	**13.5%**[30] (n = 84)	12.8% (n = 32)	6.43*

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$)

[29] This item is significant as a higher proportion of the remaining adolescent participants indicated that their parents did not have this feature installed, while the remaining parents indicated that they were unsure whether this had been installed at home or not.

[30] This item is significant as a higher proportion of the remaining SA adolescents stated that they were unsure whether their parent had ever engaged in this monitoring behaviour, while the remaining UK adolescents stated that their parent had not engaged in this monitoring behaviour.

In both countries females were more likely to report that a parent or other adult in their home had looked over their shoulder, stayed in the same room or generally kept an eye on them when using the internet compared to males. No gender differences were found for any of the other items. In SA, younger adolescents were significantly more likely to have been told who they can add as contacts to social networking profiles or instant messaging programs compared to older adolescents, while in the UK, younger adolescents were significantly more likely to have had the websites they have been on monitored by an adult compared to older adolescents. No other age differences emerged (see Table 6.34, p. 214).

6.6.4.2 Differences between Adolescent Reports and Parent Perceptions

Parents also overestimated monitoring strategies relative to adolescent reports. As shown in Table 6.35, all of the items were significant between the two samples in both countries.

Table 6.35: Monitoring: Differences Between Adolescent Reports and Parent Perceptions in SA and the UK (Chi-square)

	SA			UK		
Monitoring	**Adolescent Reports**	**Parent Perceptions**	x^2	**Adolescent Reports**	**Parent Perceptions**	x^2
1. Checked your social networking profile, email account, or read your messages in an instant messaging program, chat room, or texts	28.5% (n = 178)	**63.9%** (n = 122)	89.42*** †	26.0% (n = 65)	**65.3%** (n = 66)	49.52*** ††
2. Looked over your shoulder, stayed in the same room or generally kept an eye on you when you are using the internet	27.9% (n = 174)	**55.8%** (n = 106)	67.12*** †	31.5% (n = 78)	**80.2%** (n = 81)	69.86*** ††
3. Checked which websites you have been on	21.7% (n = 135)	**62.3%** (n =119)	123.50*** ††	18.9% (n = 47)	**60.4%** (n =61)	63.42*** ††
4. Told you which friends or contacts you can add to a social networking profile or instant messaging program	13.5% (n = 84)	**35.6%** (n = 68)	56.79*** †	12.8% (n = 32)	**41.4%** (n = 41)	38.53*** †

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

6.6.5 Active Mediation

6.6.5.1 Adolescents: Gender, Age and Country Trends

For the individual active mediation items, SA adolescents were more likely to state that a parent had explained to them why some websites can be good or bad and helped them when they found something difficult to do or search for online. In the UK, adolescents were more likely to indicate that a parent had talked to them about what to do if something on the internet bothered them (see Table 6.36).

Table 6.36: Active Mediation: Differences Between Adolescents in SA and the UK (Chi-square)

Active Mediation	**Adolescents**		x^2
	SA	**UK**	
1. Parent helped you when you found something difficult to do or search for online	**68.9%** (n = 428)	60.7% (n = 148)	7.49*
2. Parent explained to you why some websites can be good or bad	**64.3%** (n = 399)	55.4% (n = 139)	8.14*
3. Parent talked to you about what to do if something on the internet, computer, tablet or mobile phone bothered you	58.9% (n = 365)	**60.8%**[31] (n =152)	8.23*
4. Parent suggested ways to use the internet safely	57.9% (n = 359)	57.0% (n = 143)	5.83
5. Parent suggested ways to behave towards other people on the internet	57.2% (n = 354)	53.0% (n = 132)	5.06
6. Parent helped you when something bothered you online	52.6% (n = 326)	51.8% (n = 130)	4.88

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

In both countries females were significantly more likely to report active mediation strategies in their home compared to males. No age differences emerged in relation to the presence of active mediation in the home (see Table 6.37, p. 214).

[31] The item 'Has a parent talked to you about what to do if something on the internet, computer, tablet or mobile phone bothered you?'is significant as a higher proportion of the remaining SA adolescents indicated that they were unsure about whether their parent had talk to them about this, while a higher proportion of the remaining UK adolescents indicated that their parents had not done so.

6.6.5.2 Differences between Adolescent Reports and Parent Perceptions

Parents in both countries reported higher active mediation for each of the individual items relative to adolescent reports (see Table 6.38).

Table 6.38: Active Mediation: Differences Between Adolescent Reports and Parent Perceptions in SA and the UK (Chi-square)

	SA			UK		
Active Mediation	**Adolescent Reports**	**Parent Perceptions**	x^2	**Adolescent Reports**	**Parent Perceptions**	x^2
1. Parent helped you when you found something difficult to do or search for online	68.9% (n = 428)	**89.4%** (n = 169)	32.35***	60.7% (n = 148)	**93.1%** (n = 94)	36.97*** †
2. Parent explained to you why some websites can be good or bad	64.3% (n = 399)	**83.6%** (n = 158)	27.78***	55.4% (n = 139)	**90.1%** (n = 91)	38.79*** †
3. Parent talked to you about what to do if something on the internet, computer, tablet or mobile phone bothered you	58.9% (n = 365)	**83.1%** (n =157)	56.79*** †	60.8% (n =152)	**96.0%** (n =97)	43.53*** †
4. Parent suggested ways to use the internet safely	57.9% (n = 359)	**80.1%** (n = 153)	32.64***	57.0% (n = 143)	**91.1%** (n = 92)	37.86*** †
5. Parent suggested ways to behave towards other people on the internet	57.2% (n = 354)	**77.9%** (n = 148)	27.36***	53.0% (n = 132)	**88.1%** (n = 89)	39.09*** †
6. Parent helped you when something bothered you online	52.6% (n = 326)	**69.8%** (n = 132)	17.58***	51.8% (n = 130)	**74.3%** (n = 75)	15.28***

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

Table 6.34: Monitoring According to Adolescent Gender and Age in SA and the UK (Chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Monitoring	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. Checked you social networking profile, email account, or read your messages in an instant messaging program, chat room, or text messages	25.3% (n = 63)	30.6% (n = 115)	4.56	32.4% (n = 46)	27.6% (n = 105)	26.5% (n = 27)	5.58	24.3% (n = 17)	37.5% (n = 48)	3.58	39.3% (n = 22)	33.7% (n = 29)	25.0% (n = 14)	2.65
2. Looked over your shoulder, stayed in the same room or generally kept an eye on you when you are using the internet	22.2% (n = 55)	**31.7%** (n = 119)	7.26*	28.2% (n = 40)	28.2% (n = 107)	26.5% (n = 27)	0.84	25.0% (n = 17)	**48.4%** (n = 61)	10.07**	46.4% (n = 26)	38.4% (n = 33)	36.5% (n = 19)	1.31
3. Checked which websites you have been on	25.4% (n = 63)	19.2% (n = 72)	4.63	23.2% (n = 33)	20.6% (n = 78)	23.5% (n = 24)	4.36	23.5% (n = 16)	25.2% (n = 31)	0.07	**35.7%** (n = 20)	25.0% (n = 20)	12.7% (n = 7)	7.92*
4. Told you which friends or contacts you can add to a social networking profile or instant messaging program	10.9% (n = 27)	15.2% (n = 57)	2.72	**18.4%** (n = 26)	11.0% (n = 42)	15.7% (n = 16)	12.36*	12.7% (n = 9)	17.0% (n = 23)	0.67	16,1% (n = 10)	18.2% (n = 16)	10.7% (n = 6)	1.48

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

Table 6.37: Active Mediation According to Adolescent Gender and Age in SA and the UK (chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Active Mediation	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. Parent helped you when you found something difficult to do or search for online	59.3% (n = 147)	**75.3%** (n = 281)	18.18***	68.8% (n = 97)	70.9% (n = 268)	61.8% (n = 63)	3.61	57.3% (n = 43)	**71.9%** (n = 105)	4.76*	71.0% (n = 49)	69.8% (n = 67)	57.1% (n = 32)	3.30
2. Parent explained to you why some websites can be good or bad	58.1% (n = 144)	**68.4%** (n = 255)	7.09*	59.6% (n = 84)	65.1% (n = 246)	67.6% (n = 69)	5.97	57.0% (n = 45)	64.8% (n = 94)	1.34	66.2% (n = 45)	61.0% (n = 61)	58.9% (n = 33)	0.77
3. Parent talked to you about what to do if something on the internet, computer, tablet or mobile phone bothered you	49.0% (n = 121)	**65.4%** (n = 244)	16.79***	57.0% (n = 81)	59.3% (n = 223)	59.8% (n = 61)	0.31	52.5% (n = 42)	**76.4%** (n = 110)	13.46***	65.7% (n = 46)	68.7% (n = 68)	69.1% (n = 38)	0.22
4. Parent suggested ways to use the internet safely	48.4% (n = 120)	**64.2%** (n = 239)	16.20***	51.1% (n = 72)	62.3% (n = 235)	51.0% (n = 52)	9.12	55.3% (n = 42)	**68.7%** (n = 101)	3.94*	69.1% (n = 47)	61.6% (n = 61)	62.5% (n = 35)	1.07
5. Parent suggested ways to behave towards other people on the internet	43.5% (n = 108)	**66.3%** (n = 246)	31.58*** †	50.4% (n = 71)	59.6% (n = 224)	57.8% (n = 59)	4.67	48.7% (n = 37)	**64.2%** (n = 95)	4.99*	60.9% (n = 42)	56.6% (n = 56)	60.7% (n = 34)	0.41
6. Parent helped you when something bothered you online	44.4% (n = 110)	**58.1%** (n = 216)	11.24**	44.4% (n = 63)	55.6% (n = 209)	52.9% (n = 54)	5.51	43.6% (n = 34)	**67.6%** (n = 96)	12.01**	56.7% (n = 38)	58.6% (n = 58)	63.0% (n = 34)	0.50

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

6.6.6 Privacy Preservation

6.6.6.1 Adolescents: Gender, Age and Country Trends

The independent samples t-test for privacy preservation scores showed that SA adolescents engaged in higher mean privacy preservation actions (M = 2.67, SD = 2.00, SE = .08) compared to UK adolescents (M = 1.69, SD = 1.84, SE = .10), t(1007) = 7.49, $p < .001$, r = .23. The individual items highlighted this finding further, with SA adolescents being more likely to have deleted emails or messages so nobody could read them, to have minimised or closed windows when someone else came into the room, to have deleted their internet history and to have hidden or mislabelled files to keep them hidden (see Table 6.39).

Table 6.39: Privacy Preservation: Differences Between Adolescents in SA and the UK (Chi-square)

Privacy Preservation	**Adolescents**		x^2
	SA	**UK**	
1. I have taken actions to protect my online privacy from my parents	**49.9%** (n = 306)	38.7% (n = 94)	8.82**
2. I have deleted emails or other messages so nobody could read them	**70.6%** (n = 435)	53.5% (n = 130)	22.69***
3. I have minimised or closed windows or programs or hid my tablet or mobile phone when someone else came into the room or too close to me	**63.8%** (n = 392)	55.0% (n = 133)	5.78*
4. I have deleted the internet history which shows the websites I have been on	**63.3%** (n = 388)	55.8% (n = 135)	4.12*
5. I have hidden or mislabelled files to keep them hidden	**34.9%** (n = 213)	20.1% (n = 48)	17.63***

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

In SA, females were significantly more likely than males to have deleted emails or other messages so nobody could read them and were also more likely to have minimised or closed windows or hidden a device when someone else came into the room or too close to them and, in the UK, these behaviours were highest at late adolescence (see Table 6.40, next page). No other gender or age differences emerged.

Table 6.40: Privacy Preservation According to Adolescent Gender and Age in SA and the UK (Chi-square)

	SA							UK						
	Gender		x^2	Adolescence			x^2	Gender		x^2	Adolescence			x^2
Privacy Preservation Actions	**Male**	**Female**		**Early**	**Middle**	**Late**		**Male**	**Female**		**Early**	**Middle**	**Late**	
1. I have taken actions to protect my online privacy from my parents	46.1% (n = 113)	52.4% (n = 193)	2.35	50.7% (n = 70)	49.1% (n = 184)	52.0% (n = 52)	0.32	43.4% (n = 36)	36.3% (n = 58)	1.17	30.8% (n = 24)	43.5% (n = 47)	40.4% (n = 23)	3.19
2. I have deleted emails or other messages so nobody could read them	62.6% (n = 154)	**75.9%** (n = 281)	12.68***	72.5% (n = 100)	70.6% (n = 267)	68.0% (n = 68)	0.56	54.9% (n = 45)	52.8% (n = 85)	0.10	48.7% (n = 38)	46.8% (n = 51)	**73.2%** (n = 41)	11.44**
3. I have minimised or closed windows or programs or hid my tablet or mobile phone when someone else came into the room or too close to me	59.0% (n = 144)	**67.0%** (n = 248)	4.09*	56.2% (n = 77)	66.0% (n = 249)	66.0% (n = 66)	4.46	54.3% (n = 44)	55.3% (n = 89)	0.02	45.5% (n = 35)	50.5% (n = 55)	**76.8%** (n = 43)	14.48**
4. I have deleted the internet history which shows the websites I have been on	65.0% (n = 158)	62.2% (n = 230)	0.52	56.9% (n = 78)	64.1% (n = 241)	69.0% (n = 69)	3.89	58.0% (n = 47)	54.7% (n = 88)	0.25	50.6% (n = 39)	52.3% (n = 57)	69.6% (n = 39)	5.72
5. I have hidden or mislabelled files to keep them hidden	37.9% (n = 92)	32.9% (n = 121)	1.60	33.8% (n = 46)	33.0% (n = 124)	43.4% (n = 43)	3.86	26.3% (n = 21)	17.0% (n = 27)	2.85	14.3% (n = 11)	20.8% (n = 22)	26.8% (n = 15)	3.21

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

6.6.6.2 Differences between Adolescent Reports and Parent Perceptions

Parents were asked one general item relating to privacy preservation and whether they thought their child had engaged in any action to prevent them from finding out what they were doing online. Although half of adolescents in SA admitted to having taken some action to preserve their online privacy from their parents (49.9%, n= 306), only 15.2% (n = 36) of parents thought their child had done so, while just over a quarter (27.4%, n = 65) of parents said they did not know. In the UK, two in five adolescents admitted to having taken some action to preserve their online privacy from their parents (38.7%, n= 94), while a quarter of parents (26.3%, n = 26) thought that their child had done so and one in five (21.2%, n = 21) stated they did not know.

6.6.7 Mediation in Different Contexts: Differences between the Home and School According to Participants' Views[32]

In addition to parental mediation in the home, adolescents were asked about rules relating to ICTs at school more generally as well as in relation to active mediation strategies in particular. The differences in mediation between the two contexts is evident in that 65.3% (n= 397) of SA adolescents and 80.1% (n = 189) of UK adolescents thought that their school has stricter rules about the internet and the use of technology than the rules they have at home. Most adolescents in both countries reported that their school has rules about mobile phone use and, unlike in the home setting, most did not think it was easy to get around the rules about computer, tablet and mobile phone use at school. Despite the high reports of rules at school, a fair proportion of adolescents in both countries also reported not knowing whether specific rules existed. In addition, one in five (22.5%, n = 136) SA adolescents and a third (34.2%, n = 81) of UK adolescents still believed it was easy to get around rules about the internet or use of devices at school.

[32] Although school rules are compared here as well as differences in active mediation between the home and school, it is important to note that the focus here is on participants' views of mediation and the existence of rules in these contexts. As such, rather than schools being considered a unit of analysis, participants' views of the rules and mediation strategies is crucial because it may reflect differences in communication of existing school rules and differences in effectiveness of active mediation strategies in the schools rather than merely a presence or absence of these.

UK adolescents were more likely to report that their school has rules about the websites they can go on, that the school has blocking or filtering software installed, and that the rules at school are stricter than the rules about technology at home. SA adolescents reported more consequences for breaking rules about technology and were less likely to report that it was easy to get around school rules about technology compared to UK adolescents (see Table 6.41).

Table 6.41: Rules about Technological Use at School: Differences between Adolescents in SA and the UK (Chi-square)

School Rules	Adolescents		x^2
	SA	UK	
1. My school has rules about which websites I can go on.	62.8% (n = 385)	**89.5%** (n = 212)	58.05*** †
2. My school has rules about mobile phone use.	88.5% (n = 540)	86.6% (n = 206)	0.87
3. My school has rules about the amount of time I can spend on the internet.	**42.0%** (n = 256)	23.1% (n = 55)	64.07*** †
4. My school has blocking or filtering programs that prevent me from using certain programs or getting into certain websites.	55.9% (n = 341)	**92.4%** (n = 220)	102.79*** ††
5. My school has stricter rules about internet, computer, tablet or mobile phone use than the rules in my home.	65.3% (n = 397)	**80.1%** (n = 189)	18.80***
6. It is easy to get around rules about internet, computers, tablets or mobile phones at school.	22.5% (n = 136)	**34.2%** (n = 81)	20.65***
7. My school has consequences for breaking rules about the internet, computer, tablet or mobile phone use.	70.8% (n = 429)	68.2% (n = 161)	3.46

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

Active mediation at school was also explored. A paired-samples t-test was used to compare active mediation scores between the two settings. Findings revealed that adolescents in SA reported significantly higher active mediation in the home (M = 3.24, SD = 2.28, SE = .09) than at school (M = 2.71, SD = 2.25, SE = .09), t(688)= 5.55, $p < .001$, r = .21, suggesting that parents are using a wider range of active mediation strategies compared to schools according to participants' views. However, no significant differences emerged in the UK, suggesting similar rates of active mediation strategies in both settings according to participants' views. A closer look at the individual items indicated that, where significant differences emerged between the two countries, adolescents in the UK generally reported higher active mediation at school compared to SA adolescents (see Table 6.42).

Table 6.42: Active Mediation at School: Differences Between Adolescents in SA and the UK (Chi-square)

Active Mediation	Adolescents		x^2
	SA	UK	
1. School helped you when you found something difficult to do or search for online	44.1% (n = 266)	51.1% (n = 119)	3.46
2. School explained to you why some websites can be good or bad	61.1% (n = 369)	**73.0%** (n = 170)	10.33**
3.School talked to you about what to do if something on the internet, computer, tablet or mobile phone bothered you	51.4% (n = 312)	**67.8%** (n =160)	18.54***
4. School suggested ways to use the internet safely	67.1% (n = 406)	**78.0%** (n = 184)	10.20**
5. School suggested ways to behave towards other people on the internet	55.3% (n = 335)	**71.9%** (n = 169)	20.06***
6. School helped you when something bothered you online	29.6% (n = 179)	35.6% (n = 84)	3.93

(Note: * = $p < .05$, **= $p < .01$,***= $p < .001$; † = medium effect, †† = large effect)

6.6.7.1 Consequences for breaking rules

An open-ended question asked adolescents to describe the consequences for breaking the rules about ICTs at home. The responses by adolescents who had rules at home were categorised and the following consequences were reported most frequently: (i) confiscation of technological devices (mentioned 183 times in the sample), (ii) restrictions on internet access (mentioned 103 times), (iii) prevented from attending social events or sports/hobbies (i.e. grounded) (mentioned 69 times), (iv) privileges are revoked (e.g. television viewing or pocket money) or chores are added (e.g. washing dishes) (mentioned 25 times). These consequences were also confirmed by the parent sample, for example:

> *" My child has had all devices confiscated for 6 months and was only allowed to communicate with her friends with me as the intermediary. She had to book time at the school library to use the school's internet facilities for homework. I am very happy to repeat that punishment if the rules are broken again."* - (Parent, SA)

" If trust is broken, all access to the internet will be removed and usage for school will be monitored, taking away their cellphone/tablet and grounding them from going out with friends." - (Parent, SA)

"A complete ban on all screens to the point that all devices (power packs, controllers etc.) including phones are placed in a safe for a period of time. Often they have to be earned back with good behaviour." - (Parent, UK)

Although less common, a fair proportion of adolescents in both countries also reported being shouted at as a consequence for breaking rules about ICT use at home (mentioned 10 times). Several adolescents also reported physical punishment as a consequence for breaking rules about ICT use at home. Physical punishment was mentioned 16 times and occurred for the SA sample only. This was also confirmed by one parent respondent in SA ("All will be taken away and/or corporal punishment").

At school, all adolescent open-ended responses indicated that the consequences for breaking rules about ICTs at school included: (i) being blocked off the school wifi, (ii) confiscation of technological devices, (iii) detention, as well as (iv) contacting parents.

6.7 OVERALL TRENDS AND HYPOTHESES

6.7.1 Adolescents: Overall Gender, Age and Country Trends

Independent sample t-test results comparing adolescents between the two countries are shown in Table 6.43 on the next page. Findings showed that UK adolescents spent significantly more time online and engaged in a wider range of online activities compared to adolescents in SA. Examining the same variables taking the frequency with which adolescents reported engaging in each behaviour into account (i.e. frequency scores, as outlined in section 4.5.3), findings showed that not only did UK adolescents engage in a wider range of online activities but they also did so more

frequently than SA adolescents (see Table 6.44, p. 222). These overall findings, along with the significant chi-square analyses of the individual items, support **H2.1**: There is a difference in online behaviours between adolescents in SA and the UK. As such, this hypothesis is accepted.

Table 6.43: Differences Between Adolescents in SA and the UK on Key variables in the Study (t-tests)

Variables (Max. score)	**Adolescents**		
	SA	**UK**	**t**
Time Spent Online (hours per week)	21.85 (24.56)	**28.23** (26.50)	-3.61***
Online Behaviours (10)	5.00 (2.02)	**5.74** (2.15)	-5.30***
Risk Perception (-30 to +30)	**-3.49** (7.12)	-8.23 (7.37)	9.35*** †
Online Risks (21)	**8.61** (3.87)	7.09 (4.42)	5.29***
- Conduct Risks: General (13)	**3.69** (2.54)	2.51 (2.57)	6.83***
- Sexting (4)	**1.13** (1.19)	0.61 (0.92)	7.64***
- Contact Risks (4)	**1.59** (1.25)	1.16 (1.21)	5.17***
- Content Risks (5)	3.34 (1.60)	3.42 (1.87)	-0.67
Victimisation behaviours (8)	3.06 (2.32)	2.87 (2.65)	1.10
Perpetration behaviours (8)	**1.73** (1.67)	1.18 (1.78)	4.63***
Overall Parental mediation (23)	7.00 (5.20)	7.43 (5.44)	-1.09
-Restrictive Mediation (9)	2.21 (2.91)	1.93 (3.02)	1.31
-Technical Mediation (4)	0.73 (0.94)	**1.16** (1.22)	-4.84***
-Monitoring (4)	0.83 (1.09)	**1.03** (1.19)	-2.29*
-Active Mediation (6)	3.24 (2.28)	**3.62** (2.35)	-2.17*

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Meanwhile, adolescents in SA had significantly higher risk perception (which produced a medium effect) but also engaged in more online risks overall. For subtypes of risks, SA adolescents engaged in more general conduct risks and sexting in particular. Analyses of frequency scores also showed that SA adolescents engaged in sexting more frequently than UK adolescents. Contact risks were also higher among adolescents in SA. There was no difference in content risks. Along with the significant findings in the chi-square analyses, these overall trends support **H2.2**: There is a difference in online risk perception between adolescents in SA and the UK, as well as **H2.3**: There is a difference in online risk behaviours between adolescents in SA and the UK. Both are accepted.

While there was no difference between the range of online victimisation experienced between adolescents in the two countries, SA adolescents were significantly more likely to admit perpetration. For the individual findings, only one victimisation behaviour emerged as significant and two of three significant perpetration items indicated that SA adolescents were more likely to have perpetrated the behaviours than UK adolescents. The differences in roles in negative online interactions also indicated a significant difference between adolescents in the two countries. As such, **H2.4**: There is a difference in online victimisation and perpetration between adolescents in SA and the UK is accepted, albeit mainly for perpetration behaviours.

Table 6.44: Differences Between Adolescents in SA and the UK and Frequency Analysis (t-tests)

Variables (Frequency Scores)	**Adolescents**		
	SA	**UK**	**t**
Online Behaviours (40)	12.75 (5.88)	**16.50** (8.26)	-7.12***
Online Risks (21)	12.94 (7.97)	12.72 (9.65)	0.32
- Sexting (44)	**2.62** (3.31)	2.11 (3.62)	2.13*
- Content Risks (20)	9.71 (5.33)	10.06 (6.63)	-0.76
Victimisation behaviours (32)	6.21 (6.26)	7.14 (7.94)	-1.71
Perpetration behaviours (32)	2.81 (3.45)	2.45 (4.56)	1.25

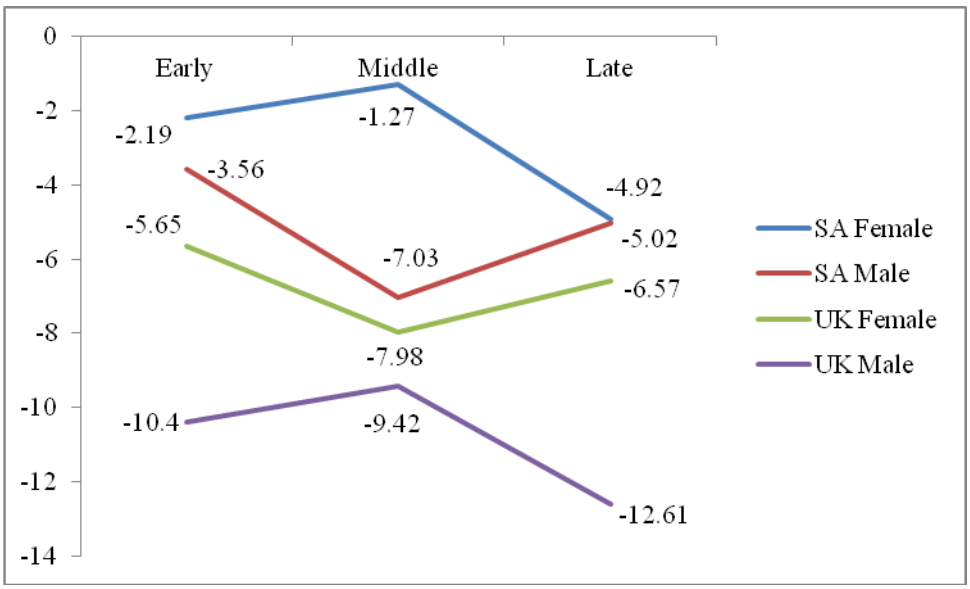
(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Parental mediation was non-significant overall, suggesting a similar range of mediation strategies reported by adolescents in both countries. For the four types of parental mediation, findings showed that UK adolescents reported higher technical mediation, monitoring and active mediation compared to SA adolescents. No significant difference was found for restrictive mediation, i.e. it was similar in both countries. Considering the significant findings for the different types of parental mediation and the significant differences in relation to the individual items, **H8**: There is a difference in reported parental mediation by adolescents in SA and the UK, is accepted. In addition, findings also indicated significant differences in relation to privacy preservation behaviours as well as school mediation between adolescents in the two countries.

To determine overall gender and age trends between the countries, 2x2x3 Factorial ANOVAs for country, gender and age categories were conducted for the key study

variables. Some interaction effects were found, although these had very small effects. For online behaviours, an interaction effect was found for country x gender, F(1, 1007) = 6.74, p = .010, η2 = .01. Males (M = 6.22, SE = .21) and females (M = 5.46, SE = .15) in the UK both engaged in more online activities than males (M = 4.95, SE = .13) and females (M = 5.01, SE = .13) in SA. A significant interaction for country x gender x age was found for risk perception, F(2, 936) = 9.25, p < .001, η2 = .02. The very small interaction effect indicated that adolescent males and females in the UK had lower risk perception compared to SA adolescents and that this was the case for each age category. For SA males and UK females, risk perception was highest at early adolescence, with a dip during middle adolescence and a subsequent increase at late adolescence. For SA females and UK males, risk perception increased at middle adolescence and subsequently decreased at late adolescence (see Figure 6.17).

Figure 6.17: Risk Perception: Differences Between Country, Gender and Age Categories of Adolescents (Interaction Effect)



A very small interaction effect was also found for online risk behaviours for the country x gender variable, F(1, 1007) = 10.37, p = .001, η2 = .01. While online risk behaviours were relatively similar for males in the UK (M = 7.67, SE = .41) and males in SA (M = 7.84, SE = .25), females in SA engaged in more online risks (M = 8.95, SE = .24) compared to UK females (M = 6.81, SE = .28) and males in both

samples. Gender and age trends for each country are reported in the following sections.

6.7.1.1 Gender and Age Trends: South Africa

Despite some variations in the chi-square analyses for the individual items, overall trends for age and gender of SA adolescents using 3x2 Factorial ANOVAs showed no differences in time spent online or for the range of online behaviours engaged in, suggesting that adolescents spend similar amounts of time online in general and engage in a similar range of online activities irrespective of gender or age. Thus, **H1.1:** There are gender and age differences in relation to adolescents' online behaviours, is rejected for the SA sample.

An interaction effect was found for risk perception which showed that males had lower risk perception at each age category compared to females, particularly at middle adolescence, $F(5, 638) = 10.19$, $p < .001$, $\eta 2 = .03$ (see Figure 6.17, p. 222). Main effects confirmed the gender and age differences. Males had lower overall mean risk perception (M = -5.20, SE = 0.45) compared to females (M = -2.79, SE = .42), $F(1, 643) = 15.39$, $p < .001$, $\eta 2 = .02$. Risk perception also decreased with age, $F(2, 643) = 3.27$, $p = .039$, $\eta 2 = .01$. Bonferroni post-hoc analyses indicated that the difference between early (M = -2.88, SE = .56) and late adolescence (M = -4.97, SE = 0.64) was significant ($p = .045$). Comparisons with middle adolescence overall (M = -4.15, SE = 0.36) were non-significant. Although these effects were small, considered along with the chi-square analyses that showed that females had higher risk perception and males and that older adolescents tended to have lower risk perception compared to younger adolescents, **H1.2**: There are gender and age differences in relation to adolescents' risk perception, is accepted for the SA sample.

Online risks, incorporating the three types of online risks, produced main effects for gender and age, but no interaction effect. Females had higher overall online risk behaviour scores (M = 8.95, SE = .23) compared to males (M = 7.84, SE = .24), F(2,

689) = 11.35, p = .001, η2 = .02. Online risk taking also increased with age: Those in early adolescence had lower mean online risk behaviour scores (M = 7.39, SE = .30) compared to those in middle (M = 8.77, SE = .19) and late adolescence (M = 9.02, SE = .34), F(2, 689) = 8.83, p < .001, η2 = .03. Both effects were small. Bonferroni post-hoc analyses showed that the difference between early and middle adolescence (p < .001) and early and late adolescence (p = .001) was significant.

For the individual types of online risks, separate independent samples t-tests and one-way ANOVAs were conducted for gender and age respectively on account of a violation of the assumption of homogeneity of variance for a Factorial ANOVA. Findings revealed that females engaged in higher conduct related risks (M = 4.16, SD = .2.59, SE = .13) compared to males (M = 3.02, SD = 2.30, SE = .14), t(657) = -6.07, p < .001, r = .23. Sexting was examined separately as a conduct risk and findings showed that females engaged in higher mean sexting behaviours (M = 1.24, SD = 1.17, SE = .06) compared to males (M = 0.72, SD = 1.00, SE = .06), t(664) = -6.32, p <.001, r = .24. No gender differences emerged for contact risks or content risks.

Age was significant for conduct and contact risks. Homogeneity of variance was violated so the more robust Welch's F-ratio is reported. For conduct risks, the age effect showed that those in early adolescence (M = 2.70, SD = 2.18, SE = .18) engaged in lower conduct risks than those in middle (M = 4.08, SD = .2.62, SE = .13) and late adolescence (M = 3.61, SD = 2.32, SE = .21), F(2, 287) = 19.90, p < .001, η2 = .05. Post-hoc analysis (Dunnett T3) indicated that the difference between early and middle adolescence (p < .001) and early and late adolescence (p = .003) was significant. Sexting behaviours also varied with age, F(2, 278) = 13.58, p < .001, η2 = .03. Those in middle (M = 1.14, SD = 1.16, SE = .06) and late adolescence (M = 1.08, SD = 1.14, SE = .11) had higher mean sexting scores compared to those in early adolescence (M = .66, SD = .91, SE = .07). Post-hoc analyses (Dunnett T3) indicated that the difference between early and middle adolescence (p < .001) and early and late adolescence (p = .007) was significant. Contact risks tended to increase with age of adolescents with lower contact risks at early adolescence (M = 1.21, SD = 1.24, SE = .10) compared to both middle (M = 1.66, SD = 1.19, SE = .06) and late adolescence

(M = 1.82, SD = .1.37, SE = .12), F(2, 256) = 9.47, $p < .000$, $\eta 2 = .03$. Post-hoc analyses (Dunnett T3) showed that the difference between early and middle adolescence ($p = .001$) and early and late adolescence ($p = .001$) was significant. No age effect was found for content risks. Despite some variations in individual online risk items and the different subtypes of risks, overall trends indicated that females engaged in more online risks and that online risk taking tended to increase with age. Considered with the chi-square analyses noted in section 6.4, **H1.3**: There are gender and age differences in relation to adolescents' online risks, is accepted for the SA sample.

Online victimisation also violated the assumption of homogeneity of variance, but an independent sample t-test for gender showed that females had higher online victimisation experiences (M = 3.55, SD = 2.20, SE = .11) compared to males (M = 2.34, SD = 2.31, SE = .14), t(653) = -6.74, $p < .001$, r = .26, which indicated a medium effect. The gender differences were also found for all of the individual items in the chi-square analyses. On account of the violation of the assumption of homogeneity of variance, the robust Welch's F-ratio is reported, which indicated a significant but small age effect, F(2, 238) = 6.67, $p = .002$, $\eta 2 = .02$. Findings showed that victimisation was lowest at early adolescence (M = 2.48, SD = 2.17, SE = .18) and that it increased at middle (M = 3.20, SD = 2.26, SE = .11) and late adolescence (M = 3.34, SD = 2.60, SE = .25). Post-hoc analyses (Dunnett T3) indicated that the difference between early and middle adolescence ($p = .002$) and early and late adolescence ($p = .016$) was significant. No gender and age differences emerged in relation to perpetration behaviours. As a result, **H1.4**: There are gender and age differences in relation to adolescents' victimisation and perpetration, is accepted for online victimisation but not for perpetration in the SA sample.

A main effect for gender was found for overall parental mediation with females reporting significantly higher parental mediation (M = 7.41, SE = .32) compared to males (M = 6.40, SE = .33), F(1, 689) = 4.82, $p = .028$, $\eta 2 = .01$. Examining the different types of parental mediation, findings showed no gender or age differences for restrictive or technical mediation and no age differences for monitoring or active

mediation. However, main effects for gender indicated that females reported higher monitoring behaviours (M = 0.97, SE = .07) than males (M = 0.71, SE = .07), F(1, 689) = 7.37, p = .007, η2 = .01. Similarly, females reported higher active mediation (M = 3.61, SE = .14) than males (M = 2.54, SE = .14), F(1, 689) = 30.48, p < . 001, η2 = .04. All effect sizes were small, but combined with the chi-square findings, **H7**: Adolescent reports of parental mediation vary by gender and age, is accepted for gender but not for age in the SA sample.

In sum, the overall findings showed that females engaged in more online risks and experienced more cyberbullying victimisation than males. Females also reported higher parental mediation in general as well as specifically for monitoring and active mediation strategies. Findings also showed that online risks and victimisation experiences tended to increase with age of adolescents. These findings are summarised in Table 6.45.

Table 6.45: Overall Gender and Age Trends of SA Adolescents (Summary Table)

Variable	Gender	Age	Gender x Age
Time Spent Online	-	-	-
Online Behaviours	-	-	-
Risk Perception	F > M	E > L, Mid > L	Yes (F > E, Mid and L)
Online Risks	F > M	E < Mid < L	-
Conduct Risks	F > M	E < Mid, E < L	-
- Sexting	F > M	E < Mid, Mid > L	-
Contact Risks	-	E < Mid < L	-
Content Risks	-	-	-
Victimisation behaviours	F > M	E < Mid < L	-
Perpetration behaviours	-	-	-
Overall Parental mediation	F > M	-	-
Restrictive Mediation	-	E > Mid > L	-
Technical Mediation	-	-	-
Monitoring	F > M	-	-
Active Mediation	F > M	-	-

(Note: For gender, M = Male and F = Female. For age, E refers to those aged 12-13 years old and represents early adolescence, Mid refers to those aged 14-15 years old and represents middle adolescence, L refers to those aged 16 and older and represents late adolescence).

Variables were rescored to reflect the frequency of engagement in various behaviours and indicated that gender and age were non-significant for how frequently adolescents

engaged in various online behaviours. However, females engaged in online risk behaviours more frequently than males t(507) = -2.04, p = 042, r = .09. In particular, females engaged in sexting, t(660) = -3.04, p = .002, r = .12 and viewed risky online content more frequently than males, t(556) = -2.59, p = .010, r = .11. Although these effect sizes were small, a medium effect was found indicating that females experienced online victimisation more frequently than males, t(586) = -6.12, p < .001, r = .25. Findings also showed that the frequency of various behaviours and experiences increased with age, particularly between early and middle adolescence (see Table 6.46).

Table 6.46: Frequency of Online Behaviours and Experiences According to Gender and Age of SA Adolescents (Independent samples t-test and one-way ANOVA)

	Gender			**Adolescence**			
	Male	**Female**	**t**	**Early**	**Middle**	**Late**	**F**
Online Behaviours	12.53	12.90	-0.75	12.14	12.83	13.25	1.13
	(6.85)	(5.13)		(6.69)	(5.65)	(5.52)	
Online Risks	14.70	**16.28**	-2.04*	9.72	13.64	**15.28**	22.38***
	(9.72)	(8.39)		(6.35)	(7.97)	(8.66)	
Content Risks	9.10	**10.26**	-2.59*	7.86	**10.34**	**10.39**	14.04***
	(5.54)	(5.09)		(4.73)	(5.46)	(5.19)	
Sexting	2.16	**2.95**	-3.04**	1.46	2.82	**3.50**	18.89***
	(3.49)	(3.13)		(2.43)	(3.32)	(3.84)	
Cyberbullying Victimisation	4.46	**7.41**	6.12***	4.68	**6.66**	**6.68**	7.28**
	(5.81)	(6.28)		(5.23)	(6.35)	(6.92)	
Cyberbullying Perpetration	2.87	2.77	0.33	2.70	2.66	3.50	2.02
	(3.90)	(3.11)		(3.73)	(3.16)	(3.45)	

(Note: * = p < .05, ** = p < .01, *** = p < .001)

6.7.1.2 Gender and Age Trends: United Kingdom

Findings for the 3x2 Factorial ANOVAs for age categories and gender yielded no significant findings for time spent online. However, a main effect for gender showed that males in the UK engaged in more online activities (M = 6.22, SE = .22) compared to females (M = 5.46, SE = .16), F(1, 319) = 7.89, p = .005, η2 = .03. Females were also found to have higher online risk perception (M = -6.73, SE = .56) than males (M = -10.81, SE = .78), F(1, 292) = 18.05, p < .001, η2 = .06. No age differences emerged for online behaviours or online risk perception. Although effects are small, **H1.1:** There are gender and age differences in relation to adolescents' online behaviours, as well as **H1.2**: There are gender and age differences in relation to

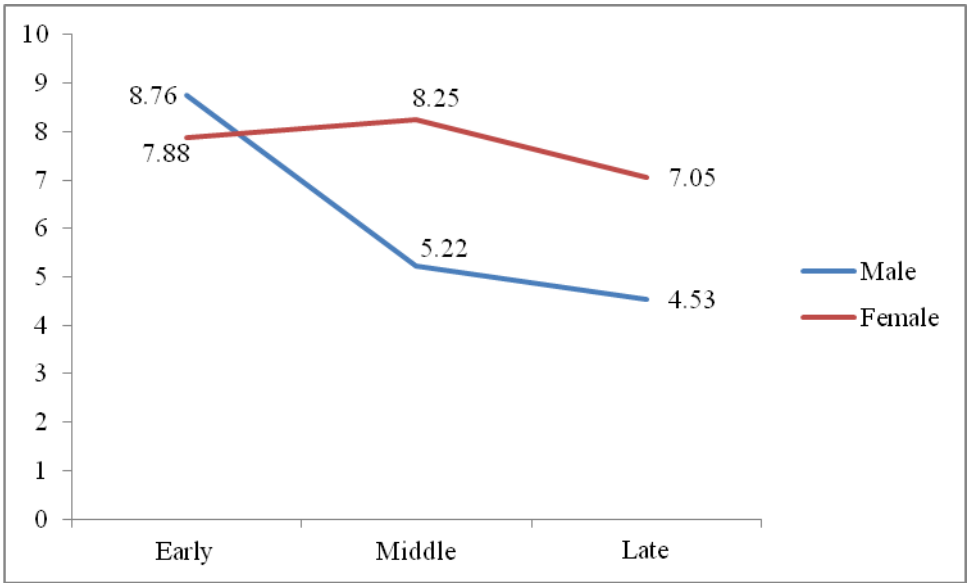
adolescents' risk perception, are accepted for gender but not for age in the UK sample.

Overall risk behaviours yielded no gender effect, but a main effect was found for age. Those in early adolescence reported fewer online risk behaviours (M = 6.22, SE = .46) compared to those in middle (M = 7.56, SE = .37) and late adolescence (M = 7.94, SE = .58), $F(1, 319) = 3.51$, $p = .031$, $\eta 2 = .02$. A closer look at each of the three types of online risks indicated that males engaged in more conduct related risks (M = 2.97, SE = .26) compared to females (M = 2.23, SE = .19, $F(1, 319) = 5.50$, $p = .020$, $\eta 2 = .02$. No interaction or main effects were found for sexting as a conduct risk and no differences were found for contact or content risks. These findings result in **H1.3**: There are gender and age differences in relation to adolescents' online risks, being accepted for age but not for gender in the UK sample.

No gender or age differences were found for online victimisation or perpetration among UK adolescents. Therefore, **H1.4**: There are gender and age differences in relation to adolescents' victimisation and perpetration, is rejected for the UK sample.

For the overall parental mediation score, a 3x2 Factorial ANOVA for gender and age produced a small interaction effect. Females reported higher parental mediation in the home than males at middle and late adolescence, $F(2, 246) = 3.06$, $p = .049$, $\eta 2 = .03$ (see Figure 6.18). The overall trend showed that parental mediation decreased with age for both males and females, although females reported higher parental mediation overall than males. The main effects further highlighted this finding. Females reported higher mediation overall (M = 7.72, SE = .44) compared to males (M = 6.17, SD = .63), $F(1, 246) = 4.13$, $p = .043$, $\eta 2 = .02$. Reported parental mediation decreased with age (M = 8.32, SE = .61 for early adolescence, M = 6.73, SE = .56 for middle adolescence and M = 5.79, SE = .80 for late adolescence, $F(2, 246) = 3.59$, $p = .029$, $\eta 2 = .03$.

Figure 6.18: Overall Parental Mediation According to Gender and Age of UK Adolescents (Interaction Effect)



The four types of parental mediation were analysed separately and no gender or age differences were found for technical mediation. A gender effect was found for monitoring, with females reporting significantly higher monitoring behaviours (M = 1.14, SE = .10) than males (M = .074, SE = .15), F(1, 216) = 5.17, p = .024, η2 = .02. Similarly, females reported higher active mediation (M = 3.92, SE = .20) than males (M = 2.83, SE = .28), F(1, 232) = 10.37, p = .001, η2 = .04. Due to the violation of the assumption of homogeneity of variance, a one-way ANOVA for restrictive mediation was conducted and the more robust Welch's F-ratio reported which yielded a significant age effect. The findings showed that restrictive mediation decreased from early adolescence (M = 2.67, SD = 3.07, SE = .33) to middle adolescence (M = 1.85, SD = 3.09, SE = .44) and late adolescence (M = 1.11, SD = 2.59, SE = .44) F(2, 152) = 5.23, p = .009, η2 = .04. Considering these findings alongside some of the chi-square analyses described earlier, **H7**: Adolescent reports of parental mediation vary by gender and age, is accepted for the UK sample.

In sum, findings showed that males engaged in more online behaviours and, although there was no gender difference in terms of overall online risk taking, online risk

behaviours increased with age. Males engaged in higher conduct risks than females and no gender and age differences were found for online victimisation or perpetration. Females reported higher risk perception and parental mediation, particularly in relation to monitoring and active mediation strategies. Parental mediation was also found to generally decrease with age. These findings are summarised in Table 6.47.

Table 6.47: Overall Gender and Age Trends of UK Adolescents (Summary Table)

Variable	Gender	Age	Gender x Age
Time Spent Online	-	-	-
Online Behaviours	M > F	-	-
Risk Perception	F > M	-	-
Online Risks	-	E < Mid < L	-
Conduct Risks	M > F	-	-
- Sexting	-	-	-
Contact Risks	-	-	-
Content Risks	-	-	-
Victimisation behaviours	-	-	-
Perpetration behaviours	-	-	-
Overall Parental mediation	F > M	E > Mid > L	Yes (F > Mid, F > L)
Restrictive Mediation	-	E > Mid > L	-
Technical Mediation	-	-	-
Monitoring	F > M	-	-
Active Mediation	F > M	-	-

(Note: For gender, M = Male, F = Female. For age, E refers to those aged 12-13 years old and represents early adolescence, Mid refers to those aged 14-15 years old and represents middle adolescence, L refers to those aged 16 and older and represents late adolescence).

Reflecting the frequency of behaviours, analyses using independent samples t-tests and one-way ANOVA's for gender and age were conducted (see Table 6.48, next page). Gender was significant only in relation to the frequency of engagement in various online behaviours, with males engaging in online behaviours more frequently than females, $t(181) = 2.47$, $p = .014$, $r = .18$.

Findings showed that the frequency of engaging in online risk behaviours overall varied with age, $F(2, 277) = 8.77$, $p < .001$, $\eta 2 = .06$. A Bonferroni post-hoc analysis showed that the difference between early and middle ($p = .001$) and early and late ($p = .001$) adolescence was significant. Age was also significant for frequency of content risk exposure, $F(2, 285) = 10.31$, $p < .001$, $\eta 2 = .07$, with significant differences again

emerging between early and middle (p < .001) as well as early and late (p < .001) adolescence. Welch's F-ratio is reported for frequency of sexting due to the assumption of homogeneity not being met for this variable, which was also significant, F(2, 148) = 3.70, p = .027, η2 = .02. Dunnet T3 post-hoc analyses showed that the difference between early and late adolescence was significant (p = .033).

Table 6.48: Frequency of Online Behaviours and Experiences According to Gender and Age of UK Adolescents (independent samples t-test and one-way ANOVA)

	Gender			Adolescence			
	Male	**Female**	**t**	**Early**	**Middle**	**Late**	**F**
Online Behaviours	**18.19**	15.61	2.47*	16.53	16.80	15.46	0.64
	(9.08)	(7.68)		(8.02)	(8.21)	(8.16)	
Online Risks	12.61	12.78	-0.14	9.00	13.69	**14.78**	8.77***
	(10.16)	(9.40)		(8.66)	(9.47)	(9.36)	
Content Risks	9.99	10.09	-0.12	7.31	10.91	**11.48**	10.31***
	(6.97)	(6.45)		(5.90)	(6.79)	(6.17)	
Sexting	2.19	2.07	0.25	1.24	**2.25**	**2.72**	3.70*
	(3.98)	(3.42)		(3.26)	(3.43)	(3.93)	
Cyberbullying Victimisation	6.37	7.55	-1.20	5.85	7.59	7.62	1.47
	(7.36)	(8.22)		(7.70)	(8.06)	(7.31)	
Cyberbullying Perpetration	2.93	2.21	-1.00	2.22	2.60	2.45	0.17
	(6.24)	(3.39)		(4.55)	(4.49)	(4.56)	

(Note: * = p < .05, ** = p < .01, *** = p < .001)

6.7.2 Differences between Adolescent Reports and Parent Perceptions

In both countries parents underestimated the time their children spent online, the range of online behaviours their child engaged in, online risk behaviours, as well as online victimisation and perpetration relative to adolescent reports. Thus, **H3.1**: There is a difference in adolescent reports and parent perceptions in relation to online behaviours, **H4.1**: Compared to parental perceptions adolescents engage in more online risks, as well as **H4.2**: Compared to parental perceptions adolescents engage in more online victimisation and perpetration, are accepted for adolescents and parents in both countries.

Findings also showed that parents in both countries had higher online risk perception for their child than their child did for themselves, resulting in **H3.2**: There is a

difference in adolescent reports and parent perceptions in relation to risk perception, being accepted. Parents also overestimated the overall parental mediation in the home compared to adolescent reports. Examining each type of parental mediation strategy individually showed that parents overestimated each type of mediation relative to adolescent reports but that technical mediation was non-significant in the SA sample. As such, **H6**: Adolescents report lower parental mediation that their parents, is accepted. The findings also suggest that restrictive and active mediation were the most commonly reported strategies used to mediate online risks in both countries. These key differences between adolescent reports and parent perceptions are shown in Table 6.49.

Table 6.49: Independent Samples T-test Results Of Adolescent Reports And Parent Perceptions in SA and the UK

Variables (Max. score)	**SA**			**UK**		
	Adolescent Reports	**Parental Perceptions**	**t**	**Adolescent Reports**	**Parental Perceptions**	**t**
Time Spent Online (hours per week)	**21.85** (24.56)	12.38 (11.43)	7.66***	**28.23** (26.50)	16.37 (9.86)	6.66*** †
Online Behaviours (10)	**5.00** (2.02)	0.91 (1.57)	31.48*** ††	**5.74** (2.15)	4.58 (2.06)	5.26*** †
Risk Perception (-30 to +30)	-3.49 (7.12)	**0.83** (5.53)	-20.52*** †	-8.23 (7.37)	**-1.67** (5.73)	-9.78*** ††
Online Risks (8)	**1.29** (1.44)	.73 (1.13)	5.98***	**2.05** (1.74)	1.30 (1.44)	4.72***
Victimisation behaviours (8)	**2.91** (2.36)	.72 (1.47)	16.51*** †	**2.87** (2.65)	1.55 (1.96)	5.79*** †
Perpetration behaviours (8)	**1.60** (1.67)	.26 (.76)	16.62*** †	**1.18** (1.78)	.57 (1.20)	4.25***
Overall Parental mediation (23)	7.00 (5.2)	**11.65** (6.9)	-9.25*** †	7.43 (5.44)	**11.45** (7.68)	-4.95*** †
-Restrictive Mediation (9)	2.21 (2.91)	**4.93** (3.79)	-9.92*** †	1.93 (3.02)	**3.93** (3.76)	-5.29*** †
-Technical Mediation (4)	.73 (.94)	.85 (1.23)	-1.43	1.16 (1.22)	**1.47** (1.39)	-2.14*
-Monitoring (4)	.83 (1.09)	**1.83** (1.53)	-9.12*** †	1.03 (1.19)	**1.92** (1.50)	-5.73*** †
-Active Mediation (6)	3.24 (2.28)	**4.04** (2.39)	-4.44***	3.62 (2.35)	**4.14** (2.48)	-1.99*

(Note: * = $p < .05$, ** = $p < .01$, ***= $p < .001$; † = medium effect, †† = large effect)

Although not a focus of the main analysis since the focus of the study is on adolescent-parent comparisons, overall trends of parent perceptions were compared between the two countries to determine where significant differences existed. Findings are presented in Table 6.50 (next page) and indicate that parents in SA had significantly lower mean scores for the time they thought their child spent online, children's online behaviours, online risk behaviours, cyberbullying victimisation as well as perpetration experiences compared to parents in the UK. Parents in SA also

reported higher risk perception for their child than parents in the UK. Thus, **H5.1 – H5.4** stating that: There is a difference between parent perceptions in SA and the UK relating to online behaviours, risk perception, online risks and online victimisation and perpetration, are accepted.

There were no differences in overall reported parental mediation between parents in the two countries, nor differences in monitoring and active mediation. However, parents in SA reported significantly higher restrictive mediation and lower technical mediation compared to parents in the UK.

Table 6.50: Overall differences in perceptions between parents in SA and the UK (independent samples t-test)

Variables (Max. score)	**SA**	**UK**	**t**
Time Spent Online (hours per week)	12.38 (11.43)	**16.37** (9.86)	-2.78**
Online Behaviours (10)	0.91 (1.57)	**4.58** (2.06)	-11.93*** ††
Risk Perception (-30 to +30)	**0.83** (5.53)	-1.67 (5.73)	2.21*
Online Risks (8)	.73 (1.13)	**1.30** (1.44)	-2.76**
Victimisation behaviours (8)	.72 (1.47)	**1.55** (1.96)	-2.96**
Perpetration behaviours (8)	.26 (.76)	**.57** (1.20)	-2.27*
Overall Parental mediation (23)	11.65 (6.9)	11.45 (7.68)	1.19
-Restrictive Mediation (9)	**4.93** (3.79)	3.93 (3.76)	5.79***
-Technical Mediation (4)	.85 (1.23)	**1.47** (1.39)	-3.58**
-Monitoring (4)	1.83 (1.53)	1.92 (1.50)	-1.74
-Active Mediation (6)	4.04 (2.39)	4.14 (2.48)	-1.33

(Note: * = $p < .05$, ** = $p < .01$, ***= $p < .001$; † = medium effect, †† = large effect)

6.7.3 Interaction of Variables

Correlations between the variables highlight interesting relationships between the variables in the adolescent sample. These are shown in Tables 6.51 and 6.52 for the two countries separately (p. 236-237). Findings showed that time spent online was positively associated with online activities and online risks. In SA, the correlation represented slight relationships ($r = .20$, $p < .001$ and $r = .19$, $p < .001$ respectively), while in the UK the correlations represented small but definite relationships ($r = .31$, $p < .001$ and $r = .29$, $p < .001$ respectively). A slight relationship was found between

time spent online and online perpetration in both countries. Time spent online was also positively associated with online victimisation in the UK sample only.

Significant positive relationships were also found for the range of online activities engaged in and online risks as well as both online victimisation and perpetration. Thus, more time spent online and more online activities resulted in higher online risk taking and negative online interactions. There was a moderate correlation indicating a substantial relationship between online risks and online victimisation and perpetration in both countries. Victimisation indicated a substantial relationship between conduct risks (SA: r = .47, $p < .001$; UK: r = .40, $p < .001$) and contact risks (SA: r = .37, $p < .001$; UK: r = .43, $p < .001$). A substantial relationship was also found between victimisation and content risks in the UK sample (r = .55, $p < .001$) while this relationship was only slight in the SA sample (r = .13, $p = .001$). Similarly, perpetration indicated a substantial relationship with conduct risks (SA and UK: r = .37, $p < .001$) and contact risks (SA: r = .34, $p < .001$; UK: r = .44, $p < .001$). Again, while a substantial relationship was also found for online perpetration and content risks in the UK sample (r = .37, $p < .001$), this relationship was small relationship in the SA sample (r = .28, $p < .001$). As was already shown in earlier analyses in this chapter, victimisation and perpetration behaviours were strongly linked.

Table 6.51: Correlation Matrix of Variable Interactions among SA adolescents (r)

	Time spent online	Online activities	Online risks	Online Victimisation	Online Perpetration	Parental Mediation	Risk perception
Online activities	.20***						
Online risks	.19***	.35***					
Online Victimisation	.05	.23***	.49***				
Online Perpetration	.15***	.25***	.48***	.50***			
Parental Mediation	-.12**	-.08*	-.01	. 12**	.01		
Risk perception	-.17***	-.23***	-.17***	.09*	-.09*	.17***	
Privacy preservation	.12**	.21***	.42***	.26***	.39***	.16***	-.17***

(Note: * = $p < .05$, ** = $p < .01$, ***= $p < .001$)

Table 6.52: Correlation Matrix of Variable Interactions among UK Adolescents (r)

	Time spent online	Online activities	Online risks	Online Victimisation	Online Perpetration	Parental Mediation	Risk perception
Online activities	.31***						
Online risks	.29***	.54***					
Online Victimisation	.16**	.30***	.58***				
Online Perpetration	.19**	.30***	.49***	.59***			
Parental Mediation	-.12	-.15*	-.19**	-.04	-.07		
Risk perception	-.18**	-.32***	-.27***	-.07	-.05	. 42***	
Privacy preservation	-.12*	-.23***	-.23***	-.12*	-.11	.07	.14*

(Note: * = $p < .05$, ** = $p < .01$, ***= $p < .001$)

In both countries lower risk perception was associated with more time spent online, more online activities engaged in, as well as more online risks. In each case negative correlations with small relationships were found. Very slight, positive correlations also existed for risk perception and online victimisation in the SA sample. No significant relationships were found for risk perception and online victimisation and perpetration in the UK. Positive correlations were found for parental mediation and adolescent risk perception, this was a moderate correlation indicating a substantial relationship in the UK sample ($r = .42$, $p < .001$) and a low correlation indicating a very slight relationship in the SA sample ($r = .17$, $p < .001$).

Parental mediation was negatively associated with online activities in both countries. In SA, it was also negatively associated with time spent online and positively associated with online victimisation. In the UK, a negative association was found between parental mediation and online risks. However, all of the significant findings represented very slight correlations. Online risks as well as victimisation and perpetration were correlated with the four types of parental mediation. In SA, slight correlations were found. For example, there was a slight negative correlation between online risks and restrictive mediation ($r = -.13$, $p < .001$), technical mediation ($r = .11$, $p = .003$) and monitoring ($r = .08$, $p = .033$). In the UK, however, a small but definite negative relationship was found between online risks and restrictive mediation ($r = -.30$, $p < .001$) and not for any of the other types of parental mediation. In SA, there was no significant correlation between victimisation and restrictive mediation, but slight positive relationships existed for technical mediation ($r = .11$, $p = .004$), monitoring ($r = .17$, $p < .001$) and active mediation ($r = .09$, $p = .024$). Online perpetration was also found to have a slight positive correlation with technical mediation ($r = .10$, $p = .010$) and monitoring ($r = .11$, $p = .005$) only. In the UK, there was a small negative relationship between victimisation and restrictive mediation ($r = -.21$, $p = .001$) and a slight positive relationship with active mediation ($r = .15$, $p = .026$). No significant correlations were found for any parental mediation type and perpetration in the UK sample.

Interestingly, privacy preservation behaviours were differentially correlated between the two countries. In SA, positive correlations were found between privacy preservation and time spent online, online activities, online risks, as well as online victimisation and perpetration. In particular, strong relationships existed between privacy preservation behaviours and online risk behaviours and perpetration in the SA sample. On the other hand, in the UK, all of these variables were negatively correlated with privacy preservation behaviours and all represented fairly low correlations and small relationships. A slight positive correlation was found for privacy preservation and risk perception as well as privacy preservation and parental mediation in both countries.

This chapter presented the cross-sectional study findings highlighting the differences between adolescents in the UK and SA, gender and age differences as well as the differences between adolescent reports and parent perceptions on the main study variables, namely, access and use of ICTs, online behaviours, risk perception, online risks, cyberaggression and cyberbullying, parental mediation and school mediation. The findings are extensive, however, overall trends were discussed at the end of the chapter followed by statements relating to the the acceptance or rejection of the study hypotheses.

In sum, the findings showed that there was a difference in online behaviours of adolescents in the two countries. Adolescents in SA had higher risk perception but engaged in more online risks than UK adolescents. SA adolescents also experienced more online victimisation and engaged in more perpetration than UK adolescents, although adolescents in the UK reported higher rates of cyberbullying. Although overall parental mediation was similar, adolescents in the UK reported higher technical mediation, monitoring and active mediation than SA adolescents. Gender and age findings showed that older adolescents in both countries engaged in more online risks as did females in SA. Females in SA also reported higher online victimisation and cyberbullying than males but no differences emerged for perpetration behaviours. No gender differences existed for any of these variables in the UK. Both risk perception and parental mediation (particularly monitoring and

active mediation) were higher among females in both countries. Furthermore, parents in both countries underestimated the time adolescents spent online, their online behaviours, risk perception, online risks and online victimisation and perpetration relative to adolescent reports. Parents in both countries also overestimated parental mediation in the home relative to adolescent reports.

The following chapter focuses on the longitudinal study results that included a subset of adolescent participants (i.e. one school in each country) in an effort to demonstrate any changes in online behaviours and experiences over the period of one year.

CHAPTER 7

LONGITUDINAL STUDY RESULTS

7.1 INTRODUCTION

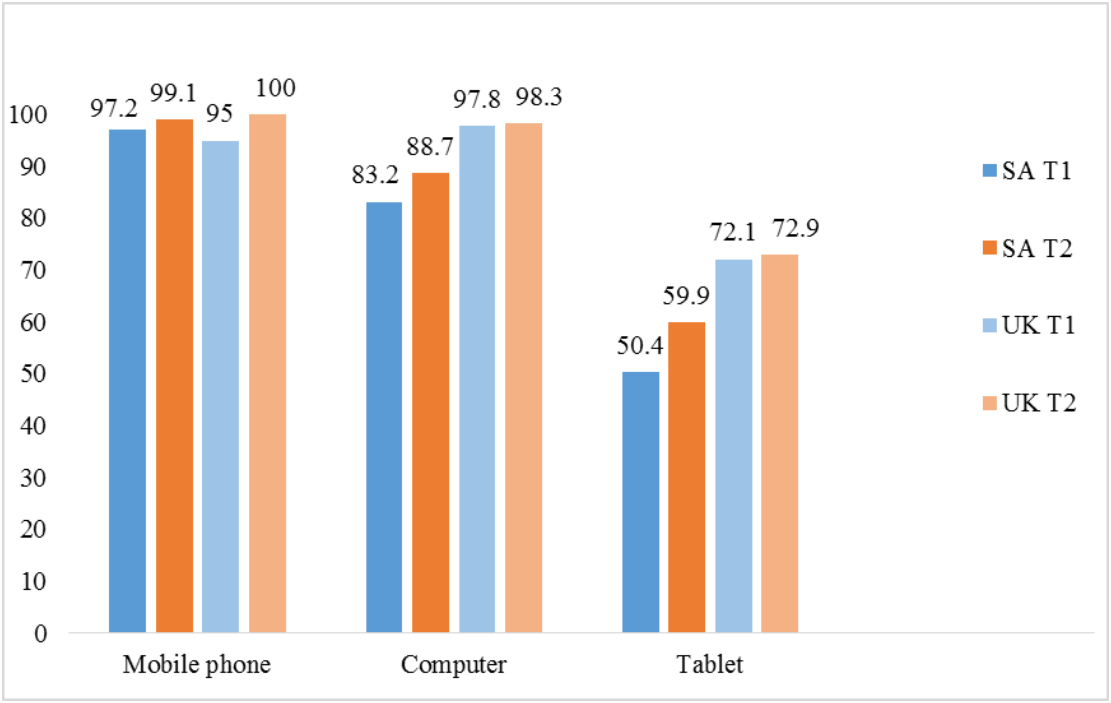
This chapter presents the key findings from the exploratory longitudinal results which included a subset of participants from the cross-sectional study. T1 data for each participating school was compared to the T2 data collected at one year follow-up with the same participants (who were then one year older[33]). Since only one school in each country was used at follow-up, the T1 results for the subset of participants are presented (since these vary from those presented in the cross-sectional study). The T1 data is presented alongside the T2 follow-up data, with changes in behaviours and perceptions in the past year noted. The results show detailed chi-square results of individual items for each of the main variables followed by the overall trends of the key variables in the study.

7.2 ACCESS TO TECHNOLOGY AND ONLINE BEHAVIOURS

Adolescents in both countries had higher access to devices at T2 than at T1 as shown in Figure 7.1 (next page). Adolescents in the UK had higher access to computers and tablets than SA adolescents at both time points, whereas mobile phone access was similar in both countries. In SA, access to tablets was significantly higher at T2, x^2 (1, N = 494) = 4.45, p = .035, φ = -.10. In the UK, access to mobile phones was significantly higher at T2, x^2 (1, N = 297) = 6.12, p = .013, φ = -.14.

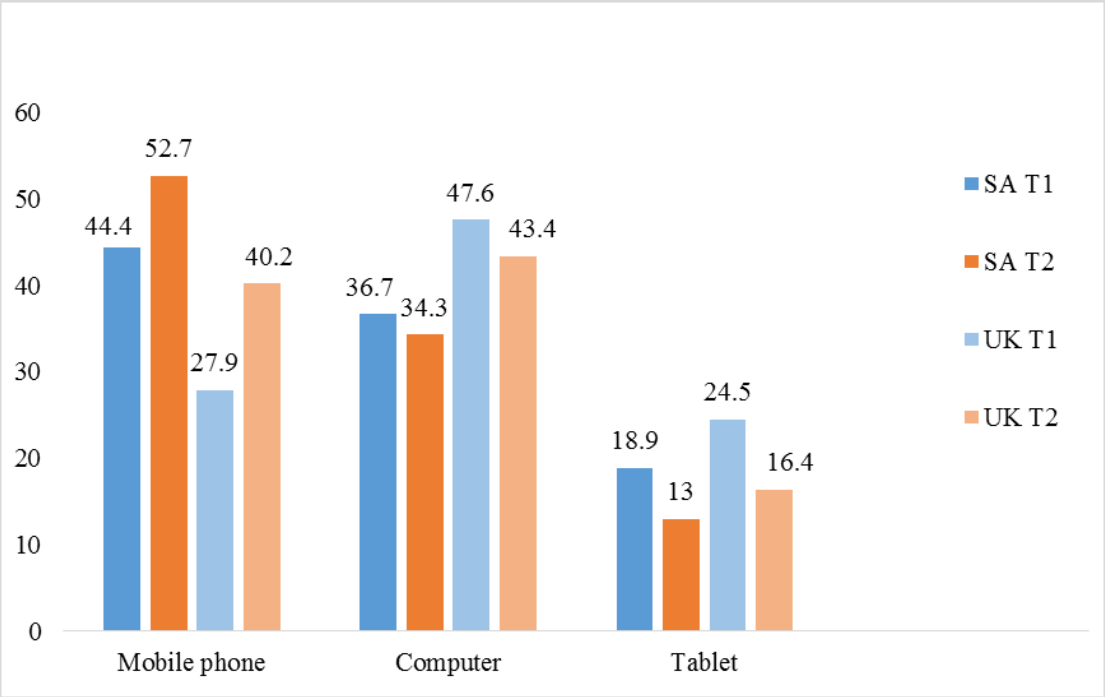
[33] As noted in Chapter 4 (section 4.6.2), T2, participants in SA were aged between 15-18 years (M = 16.05, SD = .90) and participants in the UK were aged between 14-18 years (M = 15.39, SD = 1..09).

Figure 7.1: Access to ICTs at T1 and T2 (%)



Adolescents in SA were most likely to access the internet from mobile phones which increased in use between T1 and T2. There was also an increase in the use of mobile phones to access the internet among adolescents in the UK between T1 and T2, but UK adolescents were more likely to use computers to go online. There was a decrease in the use of tablets in both countries (see Figure 7.2, next page). Despite these variations, the findings in SA between T1 and T2 were non-significant. However, the changes across time were significant in the UK, $x^2(2, N = 479) = 9.21$, $p = .01$, $V = .14$.

Figure 7.2: Most likely device used to access the internet: Differences between T1 and T2 (%)



Three-quarters of adolescents in SA (74.1%, n = 157) and the UK (76.1%, n = 89) used mobile phones every day to go online in the past year. A much smaller proportion of SA adolescents used computers or tablets every day to go online in the past year (46.2%, n = 97) compared to UK adolescents (69.5%, n = 82). In both countries computers were most often located in a private area of the home such as a study or bedroom rather than in a shared space (SA: 75.2%, n = 197; UK; 86.4%, n = 197). Most adolescents believed that they spend the same amount of time online as a typical teenager their age. In both countries the time adolescents reported spending online per week (SA: M = 27.81; UK: M = 29.85) amounted to approximately 4 hours online per day.

Online activities in SA remained fairly stable between T1 and T2, with only a significant increase in the use of programs that involve posting or commenting on pictures such as Instagram or Snapchat. This activity also increased significantly in the UK. There was also a significant increase in social networking in the UK. Various online activities also decreased in use among UK adolescents and included online gaming, programs involving webcams, chat rooms as well as participation in websites

by writing blogs or being part of discussion forums (see Table 7.1). This provides some insight into online behaviour trends and popularity of various online activities across time.

Table 7.1: Differences in Adolescent Online Behaviours at T1 and T2 (Chi-square)

Online Behaviour	SA			UK		
	T1	T2	x^2	T1	T2	x^2
1. Instant Messaging	97.9% (n = 277)	99.1% (n = 210)	1.06	75.9% (n = 107)	77.8% (n = 91)	0.13
2. Social Networking	93.3% (n = 265)	96.7% (n = 205)	2.81	82.7% (n = 91)	**93.2%** (n = 109)	5.89*
3. Programs involving uploading /commenting on pictures (e.g. Instagram, Snapchat)	64.4% (n = 183)	**83.8%** (n = 176)	22.82***	78.5% (n = 95)	**88.0%** (n = 103)	3.86*
4. Programs involving uploading/ sharing videos (e.g. YouTube)	59.5% (n = 169)	59.0% (n = 125)	0.02	78.1% (n = 107)	73.5% (n = 86)	0.73
5. Participation in websites (e.g. blogs, discussion forums)	50.7% (n = 144)	53.8% (n = 114)	0.46	**61.1%** (n = 80)	47.0% (n = 55)	4.93*
6. Programs involving webcam (e.g. Skype, Chat Roulette)	37.8% (n = 107)	42.2% (n = 89)	0.97	**72.2%** (n = 91)	59.5% (n = 69)	4.38*
7. Interactive Online Games (e.g. World of Warcraft, Second Life)	36.0% (n = 102)	33.0% (n = 69)	0.49	**58.5%** (n = 62)	34.5% (n = 40)	12.85***
8. Talking to people on the internet who you have never met in real life	32.0% (n = 91)	39.6% (n = 84)	3.06	56.8% (n = 63)	52.2% (n = 60)	0.48
9. Websites to read/post anonymous comments (e.g. AskFM)	23.9% (n = 67)	24.6% (n = 52)	0.03	39.4% (n = 50)	32.8% (n = 38)	1.15
10. Chat Rooms	14.8% (n = 42)	18.0% (n = 38)	0.89	**53.3%** (n = 40)	26.5% (n = 31)	14.13***

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Comparisons between the two countries showed that SA adolescents continued to engage in instant messaging more than UK adolescents, but UK adolescents were still more likely to use programs that involve uploading or sharing videos, programs that involve the use of a webcam as well as to talk to individuals online whom they had never met in real life (see Table 7.2, next page). The remaining online behaviours, which varied at T1, became more similar across time.

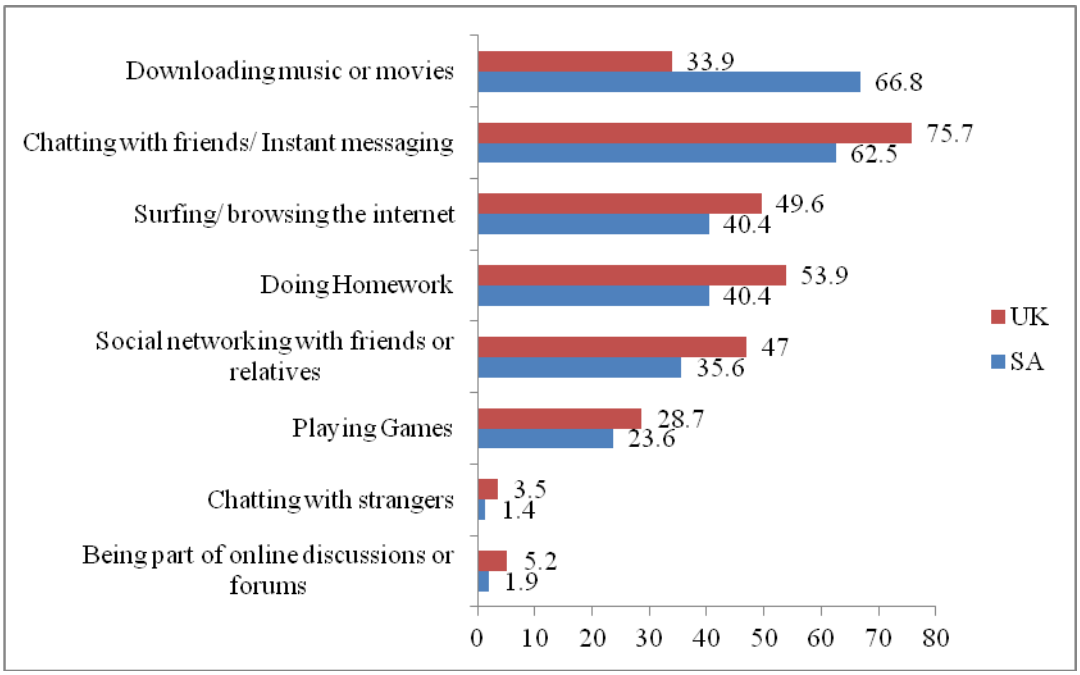
Table 7.2: Differences in Adolescent Online Behaviours between SA and the UK (chi-square)

Online Behaviour	T1			T2		
	SA	UK	x^2	SA	UK	x^2
1. Instant Messaging	**97.9%** (n = 277)	75.9% (n = 107)	53.28*** †	**99.1%** (n = 210)	77.8% (n = 91)	43.84*** †
2. Social Networking	**93.3%** (n = 265)	82.7% (n = 91)	10.19**	96.7% (n = 205)	93.2% (n = 109)	2.17
3. Programs involving uploading /commenting on pictures (e.g. Instagram, Snapchat)	64.4% (n = 183)	**78.5%** (n = 95)	7.81**	83.8% (n = 176)	88.0% (n = 103)	1.07
4. Programs involving uploading/ sharing videos (e.g. YouTube)	59.5% (n = 169)	**78.1%** (n = 107)	14.15***	59.0% (n = 125)	**73.5%** (n = 86)	6.93**
5. Participation in websites (e.g. blogs, discussion forums)	50.7% (n = 144)	**61.1%** (n = 80)	3.88*	53.8% (n = 114)	47.0% (n = 55)	1.38
6. Programs involving webcam (e.g. Skype, Chat Roulette)	37.8% (n = 107)	**72.2%** (n = 91)	41.34*** †	42.2% (n = 89)	**59.5%** (n = 69)	8.98**
7. Interactive Online Games (e.g. World of Warcraft, Second Life)	36.0% (n = 102)	**58.5%** (n = 62)	15.94***	33.0% (n = 69)	34.5% (n = 40)	0.07
8. Talking to people on the internet who you have never met in real life	32.0% (n = 91)	**56.8%** (n = 63)	20.49***	39.6% (n = 84)	**52.2%** (n = 60)	4.77*
9. Websites to read/post anonymous comments (e.g. AskFM)	23.9% (n = 67)	**39.4%** (n = 50)	10.17**	24.6% (n = 52)	32.8% (n = 38)	2.47
10. Chat Rooms	14.8% (n = 42)	**53.3%** (n = 40)	49.75*** †	18.0% (n = 38)	26.5% (n = 31)	3.26

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

The most frequent online activities adolescents engaged in was consistent between T1 and T2 in both countries, but differences between the countries remained. SA adolescents were most likely to be downloading music or movies, while UK adolescents were more likely to be chatting with friends or instant messaging, doing homework or surfing the internet (see Figure 7.3, next page).

Figure 7.3: Most frequent online activities by adolescents at T2 (%)



Behaviours remained fairly consistent between T1 and T2 according to gender of adolescents, with few significant changes. Significant findings indicated that there was an increase in the use of programs involving uploading or commenting on pictures such as Instagram and Snapchat among both males and females in SA. Although there was an increase in this online behaviour in the UK as well, it was not significant for either males or females. Males in SA were also more likely to talk to people they had never met in real life at T2, while males in the UK were significantly less likely to participate in websites through blogs or discussion forums at T2. Among UK females, there was an increase in social networking at T2 and a significant decrease in online gaming (see Table 7.3, next page).

Table 7. 3: Online Behaviours: Differences in T1 and T2 According to Gender of Adolescents in SA and the UK (chi-square)

	SA						UK					
	Male			Female			Male			Female		
Online Behaviour	**T1**	**T2**	x^2	**T1**	**T2**	x^2	**T1**	**T2**	x^2	**T1**	**T2**	x^2
1. Instant Messaging (e.g. Whatsapp, Viber)	97.7% (n = 127)	98.9% (n = 86)	0.39	98.0% (n = 150)	99.2% (n = 120)	0.60	73.6% (n = 39)	73.8% (n = 31)	0.001	77.3% (n = 68)	80.0% (n = 60)	0.18
2. Social Networking (e.g. Facebook)	90.1% (n = 118)	96.6% (n = 84)	3.22	96.1% (n = 147)	96.7% (n = 117)	0.07	81.4% (n = 35)	85.7% (n = 36)	0.29	83.6% (n = 56)	**97.3%** (n = 73)	8.05*
3. Programs involving uploading or commenting on pictures (e.g. Instagram)	52.7% (n = 69)	**79.1%** (n = 68)	15.54***	74.5% (n = 114)	**88.3%** (n = 106)	8.21**	66.0% (n = 31)	76.2% (n = 32)	1.12	86.5% (n = 64)	94.7% (n = 71)	2.93
4. Programs involving uploading or sharing videos (e.g. YouTube)	72.5% (n = 95)	70.1% (n = 61)	0.15	48.4% (n = 74)	51.2% (n = 62)	0.22	84.8% (n = 39)	78.6% (n = 33)	0.57	74.7% (n = 68)	70.7% (n = 53)	0.34
5. Participation in websites (e.g. blogs, discussion forums)	41.2% (n = 54)	47.1% (n = 41)	0.74	58.8% (n = 90)	57.0% (n = 69)	0.09	**66.0%** (n = 31)	40.5% (n = 17)	5.80*	58.3% (n = 49)	50.7% (n = 38)	0.94
6. Programs involving webcam (e.g. Skype)	39.2% (n = 51)	50.0% (n = 43)	2.44	36.6% (n = 56)	37.2% (n = 45)	0.01	74.5% (n = 35)	65.9% (n = 27)	0.78	70.9% (n = 56)	56.0% (n = 42)	3.68
7. Interactive Online Games (e.g. World of Warcraft)	57.7% (n = 75)	57.0% (n = 49)	0.01	17.6% (n = 27)	16.0% (n = 19)	0.14	80.8% (n = 42)	71.4% (n = 30)	1.13	**37.0%** (n = 20)	13.5% (n = 10)	9.63**
8. Talk to people on the internet who you have never met in real life	31.3% (n = 41)	**49.4%** (n = 43)	7.25**	32.7% (n = 50)	33.1% (n = 40)	0.004	63.6% (n = 28)	54.8% (n = 23)	0.70	52.2% (n = 35)	50.7% (n = 37)	0.03
9. Go on websites to read or post anonymous comments (e.g. Ask FM)	22.8% (n = 29)	32.6% (n = 28)	2.47	24.8% (n = 38)	19.0% (n = 23)	1.33	34.0% (n = 17)	28.6% (n = 12)	0.31	42.9% (n = 33)	35.1% (n = 26)	0.95
10. Chat Rooms	21.5% (n = 28)	30.2% (n = 26)	2.09	9.2% (n = 14)	9.1% (n = 11)	0.00	61.3% (n = 19)	42.9% (n = 18)	2.43	**47.7%** (n = 21)	17.3% (n = 13)	12.55*** ††

(Note: *= p<.05, **= p<.01, ***= p<.001; † = medium effect, †† = large effect)

When comparing males and females for each time point individually in the two countries, findings showed that males were more likely to play online games and visit chat rooms than females at T1 and T2. Males in SA were also more likely to use programs that involve uploading videos at both T1 and T2. Although there was no gender difference at T1, males were significantly more likely to talk to people on the internet whom they had never met in real life and to go on websites to read or post anonymous comments at T2. Despite an increase in males using programs that involve uploading or commenting on pictures at T2 in the UK, females were still significantly more likely to use these programs than males (see Table 7.4, next page).

Chi square analyses for age and the overall adolescent sample showed that the use of programs to upload or comment on pictures such as Instagram and Snapchat increased at middle adolescence, i.e. between 14-15 year olds at T1 (66.4%, n = 164) and 15-16 year olds at T2 (87.4%, n = 188), x^2 (1, N = 462) = 28.06, $p < .001$, φ = -.25. The use of social networking sites also increased at this age group between T1 (88.9%, n = 224) and T2 (95.9%, n = 208), x^2 (1, N = 469) = 7.78, $p = .005$, φ = -.13. No other age related differences were found for the individual items.

Table 7.4: Online Behaviours: Differences between Males and Females at T1 and T2 in SA and the UK (chi-square)

	SA						UK					
	T1			T2			T1			T2		
Online Behaviour	**Male**	**Female**	x^2	**Male**	**Female**	x^2	**Male**	**Female**	x^2	**Male**	**Female**	x^2
1. Instant Messaging (e.g. Whatsapp, Viber)	97.7% (n = 127)	98.0% (n = 150)	0.04	98.9% (n = 86)	99.2% (n = 120)	0.06	73.6% (n = 39)	77.3% (n = 68)	0.25	73.8% (n = 31)	80.0% (n = 60)	0.60
2. Social Networking (e.g. Facebook)	90.1% (n = 118)	**96.1%** (n = 147)	4.07*	96.6% (n = 84)	96.7% (n = 117)	0.003	81.4% (n = 35)	83.6% (n = 56)	0.09	85.7% (n = 36)	**97.3%** (n = 73)	5.71*
3. Programs involving uploading or commenting on pictures (e.g. Instagram)	52.7% (n = 69)	**74.5%** (n = 114)	14.69***	79.1% (n = 68)	88.3% (n = 106)	3.28	66.0% (n = 31)	**86.5%** (n = 64)	7.18**	76.2% (n = 32)	**94.7%** (n = 71)	8.73** †
4. Programs involving uploading or sharing videos (e.g. YouTube)	**72.5%** (n = 95)	48.4% (n = 74)	17.09***	**70.1%** (n = 61)	51.2% (n = 62)	7.46**	84.8% (n = 39)	74.7% (n = 68)	1.81	78.6% (n = 33)	70.7% (n = 53)	0.86
5. Participation in websites (e.g. blogs, discussion forums)	41.2% (n = 54)	**58.8%** (n = 90)	8.75**	47.1% (n = 41)	57.0% (n = 69)	1.99	66.0% (n = 31)	58.3% (n = 49)	0.74	40.5% (n = 17)	50.7% (n = 38)	1.12
6. Programs involving webcam (e.g. Skype)	39.2% (n = 51)	36.6% (n = 56)	0.21	50.0% (n = 43)	37.2% (n = 45)	3.38	74.5% (n = 35)	70.9% (n = 56)	0.19	65.9% (n = 27)	56.0% (n = 42)	1.07
7. Interactive Online Games (e.g. World of Warcraft)	**57.7%** (n = 75)	17.6% (n = 27)	48.89*** †	**57.0%** (n = 49)	16.0% (n = 19)	37.86*** ††	**80.8%** (n = 42)	37.0% (n = 20)	20.87*** †	**71.4%** (n = 30)	13.5% (n = 10)	39.78*** ††
8. Talk to people on the internet who you have never met in real life	31.3% (n = 41)	32.7% (n = 50)	0.06	**49.4%** (n = 43)	33.1% (n = 40)	5.65*	63.6% (n = 28)	52.2% (n = 35)	1.41	54.8% (n = 23)	50.7% (n = 37)	0.18
9. Go on websites to read or post anonymous comments (e.g. Ask FM)	22.8% (n = 29)	24.8% (n = 38)	0.15	**32.6%** (n = 28)	19.0% (n = 23)	4.97*	34.0% (n = 17)	42.9% (n = 33)	1.00	28.6% (n = 12)	35.1% (n = 26)	0.52
10. Chat Rooms	**21.5%** (n = 28)	9.2% (n = 14)	8.53**	**30.2%** (n = 26)	9.1% (n = 11)	15.31*** ††	61.3% (n = 19)	47.7% (n = 21)	1.34	**42.9%** (n = 18)	17.3% (n = 13)	9.01** †

(Note: *= p<.05, **= p<.01, ***= p<.001; † = medium effect, †† = large effect)

7.3 RISK PERCEPTION

Very few changes in risk perception were found between T1 and T2 when the individual items were examined, but where significant differences emerged findings showed that risk perception for those items increased over the past year. In SA, adolescents at T2 were less likely to perceive the internet as being very safe and more likely to believe that they can handle the risks of the internet better than most teenagers their age compared to T1. In the UK, adolescents at T2 were less likely believe that people on the internet are usually honest about who they are (see Table 7.5, next page).

When the two countries were compared, findings were very similar to those at T1. For example, adolescents in the UK were significantly more likely to perceive the benefits of the internet as being bigger than the dangers, to believe that the internet is very safe and to believe that people on the internet are usually honest about who they are. In contrast, adolescents in SA were more likely to worry about things that can go wrong when they are online, to believe that they would not know what to do if faced with a dangerous situation online and to report that they are afraid of being harassed or threatened online (see Table 7.6, p. 252).

Table 7.5: Risk Perception at T1 and T2 among SA and UK Adolescents (chi-square)

	SA			UK		
Risk Perception	**T1**	**T2**	x^2	**T1**	**T2**	x^2
1. The internet is an important way for teenagers to search for information, talk to each other and be enter2ained.	82.1% (n = 234)	77.5% (n = 162)	2.65	86.0% (n = 154)	90.9% (n = 90)	2.80
2. The benefits of the internet are far bigger than any dangers.	29.8% (n = 84)	32.0% (n = 66)	0.30	41.9% (n = 75)	46.5% (n = 46)	3.02
3. I worry about things that can go wrong when I am on the internet.	47.4% (n = 135)	41.8% (n = 87)	2.23	34.3% (n = 61)	26.5% (n = 26)	2.83
4. Adults make too much of a fuss when it comes to the risks of the internet.	44.7% (n = 126)	46.9% (n = 97)	5.73	38.2% (n = 68)	40.8% (n = 40)	0.47
5. In my experience the internet is very safe.	**43.7%** (n = 125)	35.6% (n = 74)	10.23**	58.1% (n = 104)	58.6% (n = 58)	1.18
6. I feel I can handle the risks of the internet better than most teenagers my age.	58.3% (n = 165)	**66.8%** (n = 139)	11.30**	67.2% (n = 119)	56.1% (n = 55)	3.45
7. I would not know what to do if faced with a dangerous situation on the internet.	25.7% (n = 73)	26.4% (n = 55)	0.32	15.8% (n = 28)	12.1% (n = 12)	1.00
8. I cannot control the things that can happen to me on the internet.	20.8% (n = 59)	18.8% (n = 39)	0.37	18.2% (n = 32)	19.4% (n = 19)	0.74
9. I am afraid of being harassed or threatened on the internet, tablet or cellphone.	34.2% (n = 97)	31.9% (n = 66)	4.00	17.6% (n = 31)	10.1% (n = 10)	3.31
10. It is important that adults keep a watch over teenagers' internet behaviours.	53.9% (n = 151)	44.9% (n = 93)	3.93	26.1% (n = 46)	21.2% (n = 21)	1.57
11. Information on the internet should not have an age restriction; anyone should be able to make their own decisions and access anything they want.	23.5% (n = 67)	21.7% (n = 45)	0.82	29.5% (n = 52)	24.5% (n = 24)	1.90
12. People on the internet are usually honest about who they are.	6.0% (n = 17)	9.7% (n = 20)	2.63	**15.3%** (n = 27)	11.1% (n = 11)	7.89*
13. Access to the internet helps me/my child with homework.	91.2% (n = 258)	90.7% (n = 185)	0.05	94.9% (n = 166)	96.0% (n = 95)	1.77
14. I discover useful things online that I didn't know.	91.2% (n = 259)	92.3% (n = 191)	0.23	91.5% (n = 162)	91.8% (n = 90)	0.23
15. Children who don't have internet are at a disadvantage compared to those who do have internet.	54.8% (n = 155)	60.1% (n = 125)	1.54	69.9% (n = 123)	71.7% (n = 71)	1.80

(Note: *= p<.05, **= p<.01, ***= p<.001; † = medium effect, †† = large effect)

Table 7.6: Risk Perception at T1 and T2 among SA and UK Adolescents (chi-square)

	T1			T2		
Risk Perception	**SA**	**UK**	x^2	**SA**	**UK**	x^2
1. The internet is an important way for teenagers to search for information, talk to each other and be entertained.	82.1% (n = 234)	86.0% (n = 154)	1.48	77.5% (n = 162)	**90.9%** (n = 90)	9.38**
2. The benefits of the internet are far bigger than any dangers.	29.8% (n = 84)	**41.9%** (n = 75)	8.01*	32.0% (n = 66)	**46.5%** (n = 46)	10.62**
3. I worry about things that can go wrong when I am on the internet.	**47.4%** (n = 135)	34.3% (n = 61)	8.32*	**41.8%** (n = 87)	26.5% (n = 26)	7.69*
4. Adults make too much of a fuss when it comes to the risks of the internet.	44.7% (n = 126)	38.2% (n = 68)	1.90	**46.9%** (n = 97)	40.8% (n = 40)	6.23*
5. In my experience the internet is very safe.	43.7% (n = 125)	**58.1%** (n = 104)	9.21*	35.6% (n = 74)	**58.6%** (n = 58)	14.57**
6. I feel I can handle the risks of the internet better than most teenagers my age.	58.3% (n = 165)	67.2% (n = 119)	3.87	66.8% (n = 139)	56.1% (n = 55)	5.54
7. I would not know what to do if faced with a dangerous situation on the internet.	**25.7%** (n = 73)	15.8% (n = 28)	13.32**	**26.4%** (n = 55)	12.1% (n = 12)	13.15**
8. I cannot control the things that can happen to me on the internet.	20.8% (n = 59)	18.2% (n = 32)	3.28	18.8% (n = 39)	19.4% (n = 19)	0.10
9. I am afraid of being harassed or threatened on the internet, tablet or cellphone.	**34.2%** (n = 97)	17.6% (n = 31)	17.42*** †	**31.9%** (n = 66)	10.1% (n = 10)	17.19*** †
10. It is important that adults keep a watch over teenagers' internet behaviours.	**53.9%** (n = 151)	26.1% (n = 46)	39.60*** †	**44.9%** (n = 93)	21.2% (n = 21)	23.13*** †
11. Information on the internet should not have an age restriction; anyone should be able to make their own decisions and access anything they want.	23.5% (n = 67)	29.5% (n = 52)	4.79	21.7% (n = 45)	24.5% (n = 24)	3.70
12. People on the internet are usually honest about who they are.	6.0% (n = 17)	**15.3%** (n = 27)	23.16*** †	9.7% (n = 20)	**11.1%** (n = 11)	36.76*** †
13. Access to the internet helps me/my child with homework.	91.2% (n = 258)	94.9% (n = 166)	2.25	90.7% (n = 185)	96.0% (n = 95)	4.33
14. I discover useful things online that I didn't know.	91.2% (n = 259)	91.5% (n = 162)	0.76	92.3% (n = 191)	91.8% (n = 90)	0.17
15. Children who don't have internet are at a disadvantage compared to those who do have internet.	54.8% (n = 155)	**69.9%** (n = 123)	10.41**	60.1% (n = 125)	71.7% (n = 71)	5.90

(Note: *= p<.05, **= p<.01, ***= p<.001; † = medium effect, †† = large effect)

When T1 and T2 were analysed for gender, few differences emerged. There was no significant difference for any of the items between T1 and T2 for males in SA, but females at T2 were significantly less likely to perceive the internet as being safe and more likely to believe that they could handle the risks of the internet better than most teenagers their age and to believe that people on the internet are usually honest about who they are compared to T1. In the UK, no significant differences were found between T1 and T2 for females, but males at T2 were significantly less likely to report that they worry about things that can go wrong when they are online or that they would not know what to do if faced with a dangerous situation online (see Table 7.7, next page).

When males and females were compared, findings showed that females in both countries were significantly more likely to worry about things that can go wrong when they were online at follow-up. This is unlike findings from T1 where no gender differences were found for this item. In SA, females at T2 were also more likely to report feeling afraid of being harassed or threatened online compared to males, a difference which was also found at T1. In the UK, males at T2 were significantly more likely to feel that they could handle the risks of the internet better than most teenagers their age, while females at T2 were more likely to report that they would not know what to do if faced with a dangerous situation online. Both of these UK findings are in contrast to findings from T1, where no differences were found between the genders on these two items (see Table 7.8, p. 255).

Table 7.7: Risk Perception According to Gender of Adolescents at T1 and T2 (Chi-square)

	SA						UK					
	Males			Females			Males			Females		
Risk Perception	**T1**	**T2**	x^2	**T1**	**T2**	x^2	**T1**	**T2**	x^2	**T1**	**T2**	x^2
1. The internet is an important way for teenagers to search for information, talk to each other and be entertained.	86.3% (n = 113)	84.7% (n = 72)	2.01	78.6% (n = 121)	73.3% (n = 88)	1.03	87.7% (n = 57)	91.9% (n = 34)	2.46	85.1% (n = 97)	90.3% (n = 56)	0.97
2. The benefits of the internet are far bigger than any dangers.	39.2% (n = 51)	32.9% (n = 28)	1.43	21.7% (n = 33)	30.5% (n = 36)	3.38	50.8% (n = 33)	54.1% (n = 20)	0.44	36.8% (n = 42)	41.9% (n = 26)	2.64
3. I worry about things that can go wrong when I am on the internet.	40.2% (n = 53)	32.1% (n = 27)	3.50	53.6% (n = 82)	49.2% (n = 59)	0.53	**32.8%** (n = 21)	11.1% (n = 4)	6.20*	35.1% (n = 40)	35.5% (n = 22)	0.52
4. Adults make too much of a fuss when it comes to the risks of the internet.	45.4% (n = 59)	51.2% (n = 43)	1.92	44.1% (n = 67)	44.5% (n = 53)	3.07	53.8% (n = 35)	45.9% (n = 17)	0.81	29.2% (n = 33)	37.7% (n = 23)	2.41
5. In my experience the internet is very safe.	48.5% (n = 64)	45.2% (n = 38)	5.18	**39.6%** (n = 61)	29.2% (n = 35)	6.14*	66.2% (n = 43)	67.6% (n = 25)	0.96	53.5% (n = 61)	53.2% (n = 33)	0.45
6. I feel I can handle the risks of the internet better than most teenagers my age.	64.1% (n = 84)	66.7% (n = 56)	4.95	53.3% (n = 81)	**66.7%** (n = 80)	8.30*	71.4% (n = 45)	64.9% (n = 24)	2.08	64.9% (n = 74)	50.8% (n = 31)	3.92
7. I would not know what to do if faced with a dangerous situation on the internet.	19.1% (n = 25)	21.4% (n = 18)	0.19	31.4% (n = 48)	30.8% (n = 37)	0.38	**14.3%** (n = 9)	0.0% (n = 0)	7.32*	16.7% (n = 19)	19.4% (n = 12)	0.28
8. I cannot control the things that can happen to me on the internet.	21.4% (n = 28)	19.0% (n = 16)	0.18	20.4% (n = 31)	19.2% (n = 23)	0.30	21.0% (n = 13)	11.1% (n = 4)	1.55	16.7% (n = 19)	24.2% (n = 15)	2.16
9. I am afraid of being harassed or threatened on the internet, tablet or cellphone.	19.2% (n = 25)	12.0% (n = 10)	4.86	46.8% (n = 72)	45.8% (n = 55)	1.30	9.5% (n = 6)	5.4% (n = 2)	1.23	22.1% (n = 25)	12.9% (n = 8)	4.00
10. It is important that adults keep a watch over teenagers' internet behaviours.	48.4% (n = 62)	44.6% (n = 37)	0.33	58.6% (n = 89)	45.8% (n = 55)	4.39	23.8% (n = 15)	21.6% (n = 8)	0.15	27.4% (n = 31)	21.0% (n = 13)	2.55
11. Information on the internet should not have an age restriction; anyone should be able to make their own decisions and access anything they want.	30.3% (n = 40)	30.1% (n = 25)	0.43	17.6% (n = 27)	15.8% (n = 19)	0.45	44.4% (n = 28)	32.4% (n = 12)	1.56	21.2% (n = 24)	19.7% (n = 12)	0.79
12. People on the internet are usually honest about who they are.	10.6% (n = 14)	12.2% (n = 10)	1.32	2.0% (n = 3)	**8.3%** (n = 10)	5.96*	17.5% (n = 11)	13.5% (n = 5)	3.22	14.0% (n = 16)	9.7% (n = 6)	4.78
13. Access to the internet helps me/my child with homework.	90.9% (n = 120)	86.7% (n = 72)	2.04	91.4% (n = 138)	94.0% (n = 110)	0.86	92.1% (n = 58)	97.3% (n = 36)	1.85	96.4% (n = 108)	95.2% (n = 59)	0.17
14. I discover useful things online that I didn't know.	90.1% (n = 118)	92.8% (n = 77)	0.55	92.2% (n = 141)	92.5% (n = 111)	0.82	95.2% (n = 60)	94.6% (n = 35)	1.63	89.5% (n = 102)	90.2% (n = 55)	0.02
15. Children who don't have internet are at a disadvantage compared to those who do have internet.	59.1% (n = 78)	63.1% (n = 53)	0.42	51.0% (n = 77)	59.2% (n = 71)	2.63	77.8% (n = 49)	81.1% (n = 30)	0.54	65.5% (n = 74)	66.1% (n = 41)	1.32

(Note: *= p<.05, **= p<.01, ***= p<.001; † = medium effect, †† = large effect)

Table 7.8: Risk Perception According to Gender of Adolescents at T1 and T2 (Chi-square)

	SA						UK					
	T1			T2			T1			T2		
Risk Perception	**Male**	**Female**	x^2	**Male**	**Female**	x^2	**Male**	**Female**	x^2	**Male**	**Female**	x^2
1. The internet is an important way for teenagers to search for information, talk to each other and be entertained.	86.3% (n = 113)	78.6% (n = 121)	2.86	84.7% (n = 72)	73.3% (n = 88)	5.54	**87.7%** (n = 57)	85.1% (n = 97)	9.76[34]**	91.9% (n = 34)	90.3% (n = 56)	0.07
2. The benefits of the internet are far bigger than any dangers.	**39.2%** (n = 51)	21.7% (n = 33)	13.17**	32.9% (n = 28)	30.5% (n = 36)	0.14	50.8% (n = 33)	36.8% (n = 42)	3.96	54.1% (n = 20)	41.9% (n = 26)	1.39
3. I worry about things that can go wrong when I am on the internet.	40.2% (n = 53)	53.6% (n = 82)	5.47	32.1% (n = 27)	**49.2%** (n = 59)	9.20*	32.8% (n = 21)	35.1% (n = 40)	0.66	11.1% (n = 4)	**35.5%** (n = 22)	7.35*
4. Adults make too much of a fuss when it comes to the risks of the internet.	45.4% (n = 59)	44.1% (n = 67)	1.31	51.2% (n = 43)	44.5% (n = 53)	2.43	**53.8%** (n = 35)	29.2% (n = 33)	10.70**	45.9% (n = 17)	37.7% (n = 23)	2.78
5. In my experience the internet is very safe.	48.5% (n = 64)	39.6% (n = 61)	2.43	45.2% (n = 38)	29.2% (n = 35)	5.88	66.2% (n = 43)	53.5% (n = 61)	3.28	67.6% (n = 25)	53.2% (n = 33)	1.97
6. I feel I can handle the risks of the internet better than most teenagers my age.	64.1% (n = 84)	53.3% (n = 81)	3.49	66.7% (n = 56)	66.7% (n = 80)	0.76	71.4% (n = 45)	64.9% (n = 74)	2.15	**64.9%** (n = 24)	50.8% (n = 31)	6.91*
7. I would not know what to do if faced with a dangerous situation on the internet.	19.1% (n = 25)	31.4% (n = 48)	5.82	21.4% (n = 18)	30.8% (n = 37)	2.22	14.3% (n = 9)	16.7% (n = 19)	0.18	0.0% (n = 0)	**19.4%** (n = 12)	10.10** †
8. I cannot control the things that can happen to me on the internet.	21.4% (n = 28)	20.4% (n = 31)	2.15	19.0% (n = 16)	19.2% (n = 23)	0.52	21.0% (n = 13)	16.7% (n = 19)	2.76	11.1% (n = 4)	24.2% (n = 15)	2.84
9. I am afraid of being harassed or threatened on the internet, tablet or cellphone.	19.2% (n = 25)	**46.8%** (n = 72)	23.87*** †	12.0% (n = 10)	**45.8%** (n = 55)	26.33*** †	9.5% (n = 6)	**22.1%** (n = 25)	11.37**	5.4% (n = 2)	12.9% (n = 8)	1.53
10. It is important that adults keep a watch over teenagers' internet behaviours.	48.4% (n = 62)	58.6% (n = 89)	3.22	44.6% (n = 37)	45.8% (n = 55)	0.32	23.8% (n = 15)	27.4% (n = 31)	2.34	21.6% (n = 8)	21.0% (n = 13)	0.03
11. Information on the internet should not have an age restriction; anyone should be able to make their own decisions and access anything they want.	**30.3%** (n = 40)	17.6% (n = 27)	7.48*	**30.1%** (n = 25)	15.8% (n = 19)	7.16*	**44.4%** (n = 28)	21.2% (n = 24)	13.48**	32.4% (n = 12)	19.7% (n = 12)	3.61
12. People on the internet are usually honest about who they are.	**10.6%** (n = 14)	2.0% (n = 3)	12.59**	12.2% (n = 10)	8.3% (n = 10)	0.84	17.5% (n = 11)	14.0% (n = 16)	0.48	13.5% (n = 5)	9.7% (n = 6)	0.35
13. Access to the internet helps me/my child with homework.	90.9% (n = 120)	91.4% (n = 138)	2.19	86.7% (n = 72)	94.0% (n = 110)	3.15	92.1% (n = 58)	96.4% (n = 108)	5.43	97.3% (n = 36)	95.2% (n = 59)	0.27
14. I discover useful things online that I didn't know.	90.1% (n = 118)	92.2% (n = 141)	1.39	92.8% (n = 77)	92.5% (n = 111)	0.07	95.2% (n = 60)	89.5% (n = 102)	4.73	94.6% (n = 35)	90.2% (n = 55)	3.34
15. Children who don't have internet are at a disadvantage compared to those who do have internet.	59.1% (n = 78)	51.0% (n = 77)	2.24	63.1% (n = 53)	59.2% (n = 71)	2.45	77.8% (n = 49)	65.5% (n = 74)	2.97	81.1% (n = 30)	66.1% (n = 41)	2.61

(Note: *= p<.05, **= p<.01, ***= p<.001; † = medium effect, †† = large effect)

[34] This finding was significant as a higher proportion of females reported being neutral or unsure about this statement compared to males.

For age differences in the overall sample, findings showed that 12-13 year olds at T1 were less likely to agree that the internet is very safe (57.1%, n = 28) compared to the same participants aged 13-14 years at T2 (66.7%, n = 14), x^2 (1, N = 70) = 6.81, p = .033, φ = .31. Adolescents aged 12-13 years at T1 were also more likely to report being afraid of being harassed or threatened online (24.5%, n = 12) compared to at T2 where no participants indicated that they were afraid, x^2 (1, N = 70) = 6.27, p = .044, φ = .30. Those aged 14-15 years old at T1 were less likely at follow-up to report that it is important that adults keep a watch over teenagers' internet behaviours (T1: 49.4%, n = 134; T2: 36.1%, n = 73), x^2 (1, N = 473) = 8.77, p = .012, φ = .14. In addition, those aged 16-17 at T1 were more likely to report that adults make too much of a fuss when it comes to risks of the internet at T2 (T1: 39.6%, n = 53; T2: 46.9%, n = 38), x^2 (1, N = 215) = 6.25, p = .044, φ = .17. These findings suggest that, where changes in risk perception were found, they tended to decrease with age.

7.4 ONLINE RISKS

7.4.1 Conduct Risks: General Conduct Risks and Sexting

General conduct risks between T1 and T2 were also assessed within the same time frame where adolescents indicated their level of agreement on a 5-point Likert scale. Findings showed that there was no change in conduct risk behaviours among SA adolescents, but several items were significant for the UK sample. In each case where a significant difference was found in conduct risks in the UK, risk behaviours were higher at T2 (see Table 7.9, next page). More specifically, findings showed that a higher proportion of UK adolescents at T2 said they spent more time with friends online than friends in real life, trusted people they met on the internet, were more confortable talking to people online than people in real life and thought it was easier to make friends online than friends in real life. This suggests that for some of the individual items, general conduct risks increased with age in the UK sample.

Table 7.9: General Conduct Risk Items: Differences Between Adolescents at T1 and T2 (Chi-square)

Conduct Risks (General)	SA			UK		
	T1	T2	x^2	T1	T2	x^2
1. I spend more time with friends online than friends in real life	17.3% (n = 49)	20.0% (n = 42)	0.62	18.7% (n = 32)	**32.3%** (n = 30)	6.17*
2. I usually trust people I meet on the internet	4.6% (n = 13)	4.3% (n = 9)	2.47	14.0% (n = 24)	**23.7%** (n = 22)	6.34*
3. I am more comfortable talking to people online than in real life	25.4% (n = 72)	24.6% (n = 51)	1.22	35.3% (n = 59)	**59.1%** (n = 55)	13.81**
4. I would give out personal information about myself online to win a prize	2.1% (n = 6)	1.9% (n = 4)	1.11	4.1% (n = 7)	3.2% (n = 3)	0.14
5. I do not check my security and privacy settings on my social networking profile or websites I visit.	10.6% (n = 30)	12.4% (n = 26)	2.61	11.2% (n = 19)	11.8% (n = 11)	0.17
6. I often talk to strangers on the internet for fun.	11.3% (n = 32)	14.3% (n = 30)	1.05	10.0% (n = 17)	12.0% (n = 11)	4.49
7. I have sent my picture to someone I met on the internet.	20.0% (n = 57)	21.1% (n = 44)	0.22	11.2% (n = 19)	18.5% (n = 17)	2.75
8. It's easier to make friends online than friends in real life.	26.7% (n = 76)	31.0% (n = 65)	1.95	29.0% (n = 49)	**44.1%** (n = 41)	7.01*

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

The four items that emerged as significant between T1 and T2 in the UK sample also emerged as significant between the two countries, with a higher proportion of UK adolescents reporting conduct related risks for those items compared to SA adolescents (see Table 7.10, next page).

Table 7.10: General Conduct Risk Items: Differences Between Adolescents in SA and the UK (Chi-square)

Conduct Risks (General)	T1			T2		
	SA	**UK**	x^2	**SA**	**UK**	x^2
1. I spend more time with friends online than friends in real life	17.3% (n = 49)	**18.7%** (n = 32)	8.00*	20.0% (n = 42)	**32.3%** (n = 30)	8.33*
2. I usually trust people I meet on the internet	4.6% (n = 13)	**14.0%** (n = 24)	22.80*** †	4.3% (n = 9)	**23.7%** (n = 22)	52.93*** ††
3. I am more comfortable talking to people online than in real life	25.4% (n = 72)	**35.3%** (n = 59)	21.82***	24.6% (n = 51)	**59.1%** (n = 55)	37.84*** †
4. I would give out personal information about myself online to win a prize	2.1% (n = 6)	4.1% (n = 7)	3.43	1.9% (n = 4)	3.2% (n = 3)	4.06
5. I do not check my security and privacy settings on my social networking profile or websites I visit.	10.6% (n = 30)	11.2% (n = 19)	4.07	12.4% (n = 26)	11.8% (n = 11)	0.80
6. I often talk to strangers on the internet for fun.	11.3% (n = 32)	10.0% (n = 17)	0.74	14.3% (n = 30)	12.0% (n = 11)	2.16
7. I have sent my picture to someone I met on the internet.	20.0% (n = 57)	11.2% (n = 19)	5.99	21.1% (n = 44)	18.5% (n = 17)	1.21
8. It's easier to make friends online than friends in real life.	26.7% (n = 76)	29.0% (n = 49)	2.84	31.0% (n = 65)	**44.1%** (n = 41)	7.13*

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Gender related findings indicated no difference in T1 and T2 for males in both countries as well as females in SA, but UK females were more likely at T2 to state that they feel more comfortable talking to friends online than friends in real life and also find it easier to make friends online than friends in real life compared to male adolescents (see Table 7.11, next page). In comparing the genders, no differences were found in the UK but males in SA were more likely to talk to strangers on the internet for fun at T2 than females which was a pattern that also emerged at T1 for this sample (see Table 7.12, p. 260).

In relation to age in the overall sample, findings showed that 13-14 year olds at T2 were significantly more likely to report that they usually trust people they meet on the internet (26.3%, n = 5) than those same participants aged 12-13 years at T1 (8.2%, n = 4), x^2 (2, N = 68) = 17.07, $p < .001$, $V = .50$. No other age related differences were found.

Table 7.11: General Conduct Risk Items: Differences between Gender of Adolescents at T1 and T2 (Chi-square)

Conduct Risks (General)	SA						UK					
	Male			Female			Male			Female		
	T1	T2	x^2	T1	T2	x^2	T1	T2	x^2	T1	T2	x^2
1. I spend more time with friends online than friends in real life	12.2% (n = 16)	17.4% (n = 15)	1.22	21.7% (n = 33)	22.5% (n = 27)	0.06	17.5% (n = 11)	36.1% (n = 13)	4.43	19.4% (n = 21)	29.8% (n = 17)	2.27
2. I usually trust people I meet on the internet	6.8% (n = 9)	7.0% (n = 6)	1.00	2.6% (n = 4)	2.5% (n = 3)	1.39	17.5% (n = 11)	30.6% (n = 11)	2.87	12.0% (n = 13)	19.3% (n = 11)	3.52
3. I am more comfortable talking to people online than in real life	24.4% (n = 32)	29.4% (n = 25)	1.27	26.3% (n = 40)	21.2% (n = 25)	1.56	38.3% (n = 23)	50.0% (n = 18)	1.46	33.6% (n = 36)	**64.9%** (n = 37)	14.72**
4. I would give out personal information about myself online to win a prize	3.0% (n = 4)	1.2% (n = 1)	2.89	1.3% (n = 2)	2.5% (n = 3)	0.57	6.3% (n = 4)	0.0% (n = 0)	3.81	2.8% (n = 3)	5.3% (n = 3)	1.52
5. I do not check my security and privacy settings on my social networking profile or websites I visit.	13.1% (n = 17)	14.1% (n = 12)	4.48	8.5% (n = 13)	11.7% (n = 14)	0.83	14.5% (n = 9)	11.1% (n = 4)	0.23	9.3% (n = 10)	12.3% (n = 7)	0.70
6. I often talk to strangers on the internet for fun.	17.4% (n = 23)	22.1% (n = 19)	1.16	5.9% (n = 9)	8.3% (n = 10)	0.62	14.3% (n = 9)	14.3% (n = 5)	0.34	7.5% (n = 8)	10.5% (n = 6)	4.93
7. I have sent my picture to someone I met on the internet.	16.7% (n = 22)	23.3% (n = 20)	1.72	22.9% (n = 35)	19.3% (n = 23)	0.59	14.5% (n = 9)	17.1% (n = 6)	1.81	9.3% (n = 10)	19.3% (n = 11)	4.53
8. It's easier to make friends online than friends in real life.	30.3% (n = 40)	33.7% (n = 29)	3.12	23.5% (n = 36)	29.2% (n = 35)	1.16	37.1% (n = 23)	38.9% (n = 14)	0.03	24.3% (n = 26)	**47.4%** (n = 27)	10.36**

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Table 7.12: General Conduct Risk Items: Differences between Gender of Adolescents in SA and the UK (Chi-square)

Conduct Risks (General)	SA						UK					
	T1			T2			T1			T2		
	Male	Female	x^2	Male	Female	x^2	Male	Female	x^2	Male	Female	x^2
1. I spend more time with friends online than friends in real life	12.2% (n = 16)	21.7% (n = 33)	4.65	17.4% (n = 15)	22.5% (n = 27)	1.41	17.5% (n = 11)	19.4% (n = 21)	0.92	36.1% (n = 13)	29.8% (n = 17)	1.21
2. I usually trust people I meet on the internet	**6.8%** (n = 9)	2.6% (n = 4)	7.61*	7.0% (n = 6)	2.5% (n = 3)	5.88	17.5% (n = 11)	12.0% (n = 13)	1.80	30.6% (n = 11)	19.3% (n = 11)	1.70
3. I am more comfortable talking to people online than in real life	24.4% (n = 32)	26.3% (n = 40)	0.72	29.4% (n = 25)	21.2% (n = 25)	2.37	38.3% (n = 23)	33.6% (n = 36)	0.87	50.0% (n = 18)	64.9% (n = 37)	2.04
4. I would give out personal information about myself online to win a prize	3.0% (n = 4)	1.3% (n = 2)	2.06	1.2% (n = 1)	2.5% (n = 3)	0.63	6.3% (n = 4)	2.8% (n = 3)	3.03	0.0% (n = 0)	5.3% (n = 3)	2.81
5. I do not check my security and privacy settings on my social networking profile or websites I visit.	**13.1%** (n = 17)	8.5% (n = 13)	9.02*	14.1% (n = 12)	11.7% (n = 14)	0.28	14.5% (n = 9)	9.3% (n = 10)	1.13	11.1% (n = 4)	12.3% (n = 7)	0.61
6. I often talk to strangers on the internet for fun.	**17.4%** (n = 23)	5.9% (n = 9)	9.68**	**22.1%** (n = 19)	8.3% (n = 10)	9.37**	14.3% (n = 9)	7.5% (n = 8)	2.04	14.3% (n = 5)	10.5% (n = 6)	1.13
7. I have sent my picture to someone I met on the internet.	16.7% (n = 22)	22.9% (n = 35)	4.15	23.3% (n = 20)	19.3% (n = 23)	0.76	14.5% (n = 9)	9.3% (n = 10)	1.18	17.1% (n = 6)	19.3% (n = 11)	4.20
8. It's easier to make friends online than friends in real life.	30.3% (n = 40)	23.5% (n = 36)	1.98	33.7% (n = 29)	29.2% (n = 35)	2.40	37.1% (n = 23)	24.3% (n = 26)	4.26	38.9% (n = 14)	47.4% (n = 27)	0.68

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

In terms of sexting as a conduct risk, findings indicated that 65.5% (n = 188) of SA adolescents and 40.8% (n = 73) of UK adolescents had ever experienced any kind of sexting behaviour which included sending or receiving sexually themed images or comments. At follow-up, 68.9% (n = 146) of SA adolescents and a third of UK adolescents (33.9%, n = 40) reported experiencing or engaging in any sexting behaviour in the past 12 months. These findings highlight the relevance of the issue of sexting due to the frequency with which it occurs among adolescents in general, but particularly among SA adolescents.

When individual sexting behaviours were examined, there was no significant difference between T1 and T2 in either country (see Table 7.13). This highlights the consistency of the behaviours further, considering the very different time frames asked between the two time points (i.e. 'ever' and 'in the past 12 months').

Table 7.13: Sexting: Differences Between Adolescents at T1 and T2 (Chi-square)

Conduct Risks (Sexting)	SA			UK		
	T1	T2	x^2	T1	T2	x^2
1. I have received a sexual comment or sexual picture from someone I know	56.3% (n = 160)	59.2% (n = 122)	0.41	33.3% (n = 52)	32.9% (n = 28)	0.004
2. I have received a sexual comment or sexual picture from an online stranger	46.3% (n = 131)	44.7% (n = 92)	0.13	31.4% (n = 49)	30.6% (n = 26)	0.02
3. I have sent a sexual comment or sexual picture to someone I know	31.6% (n = 90)	35.1% (n = 72)	0.68	17.9% (n = 28)	21.2% (n = 18)	0.37
4. I have sent a sexual comment or sexual picture to an online stranger	11.2% (n = 32)	8.8% (n = 18)	0.75	5.1% (n = 8)	3.5% (n = 3)	0.32

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † - medium effect, †† = large effect)

Comparing the two countries at T1 and T2 is evidence of the significantly higher sexting behaviours among SA adolescents both for receiving and sending sexting material to a known individual or to an online stranger (see Table 7.14, next page).

Table 7.14: Sexting: Differences Between Adolescents in SA and the UK (Chi-square)

Conduct Risks (Sexting)	T1			T2		
	SA	UK	x^2	SA	UK	x^2
1. I have received a sexual comment or sexual picture from someone I know	**56.3%** (n = 160)	33.3% (n = 52)	21.34***	**59.2%** (n = 122)	32.9% (n = 28)	16.64***
2. I have received a sexual comment or sexual picture from an online stranger	**46.3%** (n = 131)	31.4% (n = 49)	9.20**	**44.7%** (n = 92)	30.6% (n = 26)	4.94*
3. I have sent a sexual comment or sexual picture to someone I know	**31.6%** (n = 90)	17.9% (n = 28)	9.56**	**35.1%** (n = 72)	21.2% (n = 18)	5.46*
4. I have sent a sexual comment or sexual picture to an online stranger	**11.2%** (n = 32)	5.1% (n = 8)	4.55*	8.8% (n = 18)	3.5% (n = 3)	2.50

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

No gender differences emerged in the UK, but some gender differences exist in SA. SA males were more likely to have received sexual comments or pictures from an online stranger at T2 and, when compared to females, were more likely to have sent a sexual comment or picture to an online stranger at follow-up. This is unlike findings at T1 where females were more likely to report this (see Tables 7.15 and 7.16, next page). The remaining non-significant gender findings are evidence of how consistently these behaviours occur among adolescents at follow-up irrespective of gender. All age related findings were non-significant, suggesting that sexting is common across the age groups sampled in the current study.

Table 7.15: Sexting: Differences between Gender of Adolescents at T1 and T2 (Chi-square)

Conduct Risks (Sexting)	SA						UK					
	Male			Female			Male			Female		
	T1	T2	x^2	T1	T2	x^2	T1	T2	x^2	T1	T2	x^2
1. I have received a sexual comment or sexual picture from someone I know	51.5% (n = 67)	59.5% (n = 50)	1.31	60.4% (n = 93)	60.2% (n = 71)	0.001	27.1% (n = 16)	30.3% (n = 10)	0.11	37.1% (n = 36)	34.6% (n = 18)	0.09
2. I have received a sexual comment or sexual picture from an online stranger	38.5% (n = 50)	**52.4%** (n = 44)	4.01*	**52.9%** (n = 81)	40.7% (n = 48)	4.02*	25.4% (n = 15)	21.2% (n = 7)	0.21	35.1% (n = 34)	36.5% (n = 19)	0.03
3. I have sent a sexual comment or sexual picture to someone I know	29.8% (n = 39)	38.1% (n = 32)	1.60	33.1% (n = 51)	34.2% (n = 40)	0.03	11.9% (n = 7)	18.2% (n = 6)	0.70	21.6% (n = 21)	23.1% (n = 12)	0.04
4. I have sent a sexual comment or sexual picture to an online stranger	13.0% (n = 17)	15.7% (n = 13)	0.30	9.7% (n = 15)	4.3% (n = 5)	2.91	3.4% (n = 2)	0.0% (n = 0)	1.14	6.2% (n = 6)	5.8% (n = 3)	0.01

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Table 7.16: Sexting: Differences between Gender of Adolescents in SA and the UK (Chi-square)

Conduct Risks (Sexting)	SA						UK					
	T1			T2			T1			T2		
	Male	Female	x^2	Male	Female	x^2	Male	Female	x^2	Male	Female	x^2
1. I have received a sexual comment or sexual picture from someone I know	51.5% (n = 67)	60.4% (n = 93)	2.25	59.5% (n = 50)	60.2% (n = 71)	0.01	27.1% (n = 16)	37.1% (n = 36)	1.65	30.3% (n = 10)	34.6% (n = 18)	0.17
2. I have received a sexual comment or sexual picture from an online stranger	38.5% (n = 50)	**52.9%** (n = 81)	5.93*	52.4% (n = 44)	40.7% (n = 48)	2.71	25.4% (n = 15)	35.1% (n = 34)	1.58	21.2% (n = 7)	36.5% (n = 19)	2.23
3. I have sent a sexual comment or sexual picture to someone I know	29.8% (n = 39)	33.1% (n = 51)	0.37	38.1% (n = 32)	34.2% (n = 40)	0.33	11.9% (n = 7)	21.6% (n = 21)	2.39	18.2% (n = 6)	23.1% (n = 12)	0.29
4. I have sent a sexual comment or sexual picture to an online stranger	13.0% (n = 17)	9.7% (n = 15)	0.74	**15.7%** (n = 13)	4.3% (n = 5)	7.69**	3.4% (n = 2)	6.2% (n = 6)	0.59	0.0% (n = 0)	5.8% (n = 3)	1.97

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

7.4.2 Contact Risks: Contact with Strangers and Online Relationships

Contact risks were also a fairly consistent experience among adolescents, with a high proportion talking to people online and developing online relationships in the past 12 months. At T2, the first item "I have known at least one person online whom I have only talked to online and never met face to face" was rephrased to ask adolescents whether they had spoken to someone new online on in the past 12 months whom they have only talked to online and never met face to face. As shown in Table 7.17, three in five adolescents in both countries had ever spoken to someone online that they had never met, and the same proportion had talked to someone new online within the past year. Just over a third of SA adolescents (36.5%, n = 77) and one in five UK adolescents (19.4%, n = 18) had met an online stranger in person in the past year.

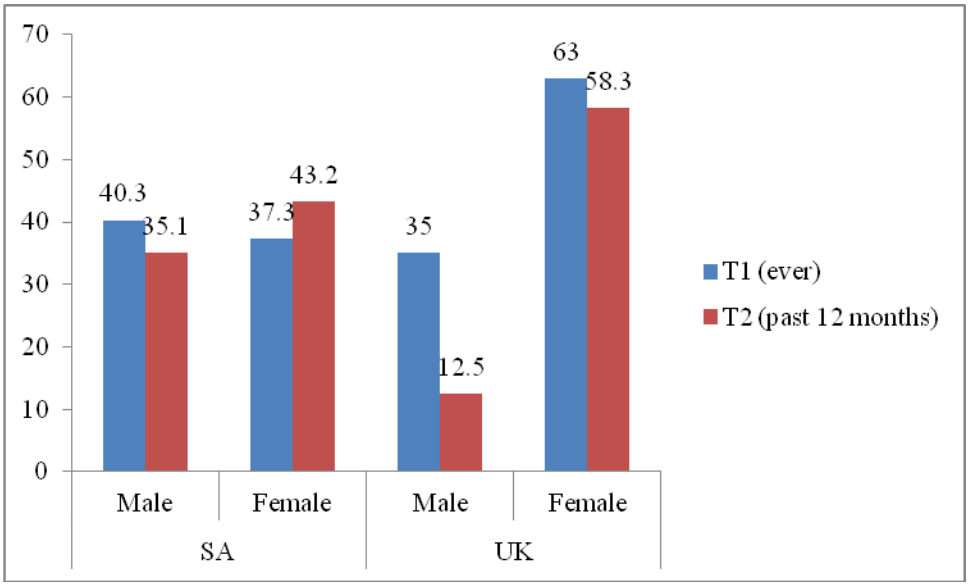
Table 7.17: Contact Risks: Differences between Adolescents at T1 and T2 (Chi-square)

Contact Risks	SA			UK		
	T1	T2	x^2	T1	T2	x^2
1. I have known at least one person online whom I have only talked to online and never met face to face.	61.3% (n = 176)	60.5% (n = 127)	0.04	60.8% (n = 104)	60.2% (n = 56)	0.01
2. I have met face to face with someone that I first met on the internet.	42.2% (n = 121)	36.5% (n = 77)	1.63	28.2% (n = 48)	19.4% (n = 18)	2.52
3. I have been romantically involved with someone online.	**29.2%** (n = 83)	18.6% (n = 38)	7.15**	9.3% (n = 15)	9.2% (n = 8)	0.001
4. I have been romantically involved with someone in real life that I first met online.	**37.5%** (n = 106)	28.8% (n = 59)	4.00*	17.4% (n = 28)	14.9% (n = 13)	0.25

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Of those who had met an online stranger in person in the past 12 months, 40.0% in both countries (SA: n = 30, UK: n = 8) told an adult about the meeting prior to it taking place, leaving the majority who had not told any adult about the meeting. Although telling someone about the meeting prior to it taking place was fairly stable between males and females in both countries, males in the UK were less likely to have told someone at T2 compared to T1 (see Figure 7.4, next page).

Figure 7.4: Told someone prior to meeting online stranger: Gender and Country differences at T1 and T2 (%)



Being romantically involved with someone online was significantly lower at T2 compared to ever having had this experience at T1 among SA adolescents (see Table 7.17, previous page). In contrast, although romantic online encounters were lower in the UK, the behaviours were consistent across time in the UK.

When adolescents in the two countries were compared, there was no difference in the proportion of adolescents who had spoken to someone new online whom they had never met. The remaining items were significant both for T1 and T2, where SA adolescents were often twice as likely to have met online strangers in person and to have had romantic experiences either online or which progressed offline (see Table 7.18, next page).

Table 7.18: Contact Risks: Differences between Adolescents in SA and the UK (Chi-square)

Contact Risks	T1			T2		
	SA	**UK**	x^2	**SA**	**UK**	x^2
1. I have known at least one person online whom I have only talked to online and never met face to face.	61.3% (n = 176)	60.8% (n = 104)	0.01	60.5% (n = 127)	60.2% (n = 56)	0.002
2. I have met face to face with someone that I first met on the internet.	**42.2%** (n = 121)	28.2% (n = 48)	8.88**	**36.5%** (n = 77)	19.4% (n = 18)	8.83**
3. I have been romantically involved with someone online.	**29.2%** (n = 83)	9.3% (n = 15)	23.72*** †	**18.6%** (n = 38)	9.2% (n = 8)	4.08*
4. I have been romantically involved with someone in real life that I first met online.	**37.5%** (n = 106)	17.4% (n = 28)	19.61***	**28.8%** (n = 59)	14.9% (n = 13)	6.30*

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Contact risks were also generally consistent for gender, but SA females were less likely to have been romantically involved with someone online in the past year compared to their reponses at T1 (see Table 7.19, next page). More SA males reported romantic online relationships at T2 compared to females (see Table 7.20). There was no difference in romantic relationships experienced which began online but progressed offline, talking to online strangers or meeting online strangers.

In terms of age and the overall sample, 12-13 year olds at T1 were more likely to have ever met someone face-to-face that they had initially spoken to online (27.1%, n = 13), but only one respondent aged 13-14 at follow-up met an online stranger in person in the past 12 months (5.3%, n = 1), x^2 (1, N = 67) = 3.92, p = .048, φ = -.24. A quarter of 14-15 year olds at T1 had ever been romantically involved with someone online whom they had never met in person (24.5%, n = 65), while 14.1% (n = 27) of 15-16 year olds had this experience in the past 12 months, x^2 (1, N = 457) = 7.59, p = .006, φ = .13. Due to the differing time frames asked at T1 and T2 (i.e. ever versus past 12 months), these findings are expected. However, considering that no other age related differences were found, this suggests that many adolescents had engaged in contact risk experiences in the past 12 months irrespective of age.

Table 7.19: Contact Risks: Differences between Gender of Adolescents at T1 and T2 (Chi-square)

Contact Risks	SA						UK					
	Male			Female			Male			Female		
	T1	T2	x^2	T1	T2	x^2	T1	T2	x^2	T1	T2	x^2
1. I have known at least one person online whom I have only talked to online and never met face to face.	61.7% (n = 82)	66.7% (n = 58)	0.57	61.0% (n = 94)	55.5% (n = 66)	0.86	66.7% (n = 42)	63.9% (n = 23)	0.08	57.4% (n = 62)	57.9% (n = 33)	0.004
2. I have met face to face with someone that I first met on the internet.	46.6% (n = 62)	43.7% (n = 38)	0.18	38.3% (n = 59)	31.7% (n = 38)	1.30	33.9% (n = 21)	19.4% (n = 7)	2.32	25.0% (n = 27)	19.3% (n = 11)	0.68
3. I have been romantically involved with someone online.	30.0% (n = 39)	25.6% (n = 21)	0.48	**28.6%** (n = 44)	14.4% (n = 17)	7.71**	8.3% (n = 5)	12.1% (n = 4)	0.35	9.9% (n = 10)	7.4% (n = 4)	0.27
4. I have been romantically involved with someone in real life that I first met online.	40.0% (n = 52)	35.4% (n = 29)	0.46	35.3% (n = 54)	25.2% (n = 30)	3.19	15.0% (n = 9)	18.2% (n = 6)	0.16	18.8% (n = 19)	13.0% (n = 7)	0.86

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Table 7.20: Contact Risks: Differences between Gender of Adolescents in SA and the UK (Chi-square)

Contact Risks	SA						UK					
	T1			T2			T1			T2		
	Male	Female	x^2	Male	Female	x^2	Male	Female	x^2	Male	Female	x^2
1. I have known at least one person online whom I have only talked to online and never met face to face.	61.7% (n = 82)	61.0% (n = 94)	0.01	66.7% (n = 58)	55.5% (n = 66)	2.63	66.7% (n = 42)	57.4% (n = 62)	1.43	63.9% (n = 23)	57.9% (n = 33)	0.33
2. I have met face to face with someone that I first met on the internet.	46.6% (n = 62)	38.3% (n = 59)	2.02	43.7% (n = 38)	31.7% (n = 38)	3.13	33.9% (n = 21)	25.0% (n = 27)	1.53	19.4% (n = 7)	19.3% (n = 11)	0.00
3. I have been romantically involved with someone online.	30.0% (n = 39)	28.6% (n = 44)	0.07	**25.6%** (n = 21)	14.4% (n = 17)	3.95*	8.3% (n = 5)	9.9% (n = 10)	0.11	12.1% (n = 4)	7.4% (n = 4)	0.55
4. I have been romantically involved with someone in real life that I first met online.	40.0% (n = 52)	35.3% (n = 54)	0.66	35.4% (n = 29)	25.2% (n = 30)	2.42	15.0% (n = 9)	18.8% (n = 19)	0.38	18.2% (n = 6)	13.0% (n = 7)	0.44

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

7.4.3 Content Risks: Exposure to Harmful or Inappropriate Content

There was no difference in content risk exposure among adolescents when comparing the proportion who had ever been exposed to risky content online and those who had been exposed to content risks in the past 12 months, apart from the higher proportion of UK adolescents who had seen information about suicide and self-harm online in the past 12 months (see Table 7.21).

Table 7.21: Content Risks: Differences between Adolescents at T1 and T2 (Chi-square)

Content Risks	SA			UK		
	T1	T2	x^2	T1	T2	x^2
1. I have seen sexual pictures or videos on the internet	80.9% (n = 228)	83.4% (n = 171)	0.53	68.8% (n = 108)	72.1% (n = 62)	0.29
2. I have seen violent pictures or videos of physical fights, accidents, or abusive behaviour towards humans or animals	86.7% (n = 247)	85.9% (n = 177)	0.06	79.2% (n = 126)	81.4% (n = 70)	0.16
3. I have seen pictures or videos or read information that is mean or hateful to people of a different race, ethnicity or religion	79.6% (n = 226)	81.5% (n = 167)	0.27	78.5% (n = 124)	82.6% (n = 71)	0.58
4. I have seen information on the internet that supports extreme diets and eating habits	81.1% (n = 232)	83.0% (n = 171)	0.29	73.6% (n = 117)	79.1% (n = 68)	0.91
5. I have seen information on the internet about suicide or hurting oneself	62.9% (n = 178)	65.4% (n = 134)	0.31	71.5% (n = 113)	**84.9%** (n = 73)	5.49*

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Exposure to content risks was similar for both SA and UK adolescents, but SA adolescents reported higher exposure to sexual pictures or videos online in the past 12 months compared to UK adolescents. This was consistent with findings at T1. The gap in exposure to violent content at T1 was reduced, with no differences emerging at T2. UK adolescents had significantly higher exposure to suicide and self-harm content at T2 which, as mentioned, increased in the past 12 months in the UK sample but remained consistent in the SA sample (see Table 7.22, next page).

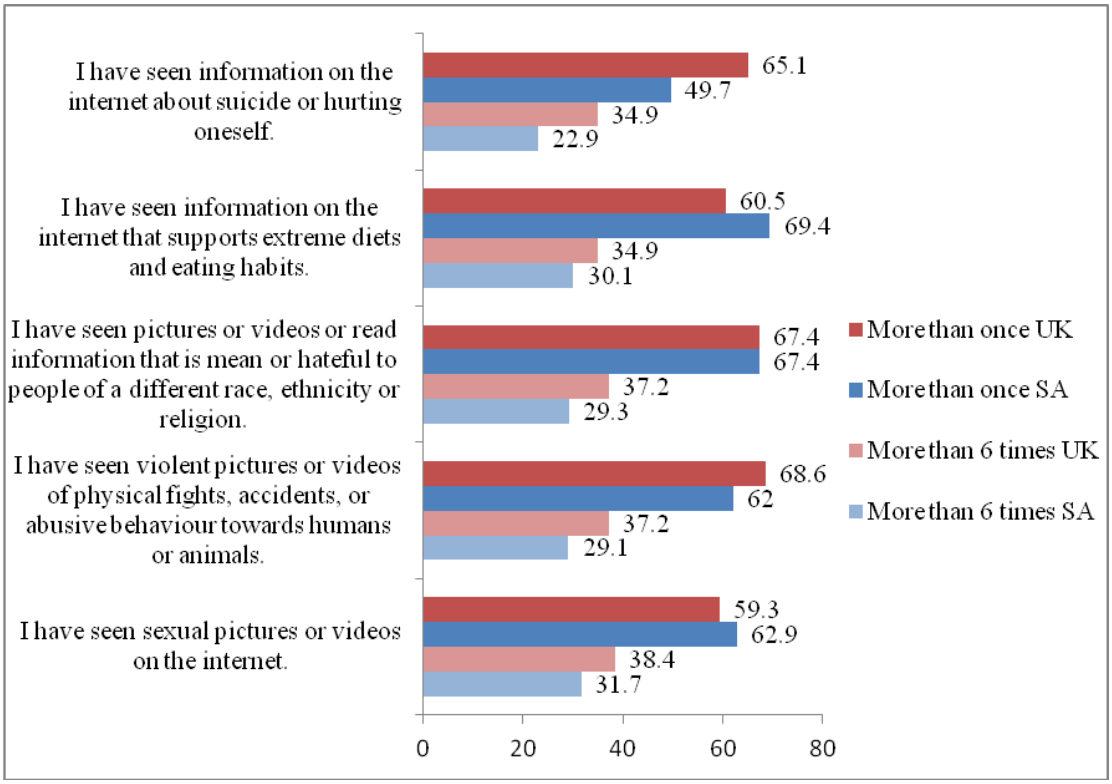
Table 7.22: Content Risks: Differences between Adolescents in SA and the UK (Chi-square)

Content Risks	T1			T2		
	SA	UK	x^2	SA	UK	x^2
1. I have seen sexual pictures or videos on the internet	**80.9%** (n = 228)	68.8% (n = 108)	8.17**	**83.4%** (n = 171)	72.1% (n = 62)	4.87*
2. I have seen violent pictures or videos of physical fights, accidents, or abusive behaviour towards humans or animals	**86.7%** (n = 247)	79.2% (n = 126)	4.18*	85.9% (n = 177)	81.4% (n = 70)	0.95
3. I have seen pictures or videos or read information that is mean or hateful to people of a different race, ethnicity or religion	79.6% (n = 226)	78.5% (n = 124)	0.07	81.5% (n = 167)	82.6% (n = 71)	0.05
4. I have seen information on the internet that supports extreme diets and eating habits	81.1% (n = 232)	73.6% (n = 117)	3.43	83.0% (n = 171)	79.1% (n = 68)	0.63
5. I have seen information on the internet about suicide or hurting oneself	62.9% (n = 178)	71.5% (n = 113)	3.36	65.4% (n = 134)	**84.9%** (n = 73)	11.24**

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

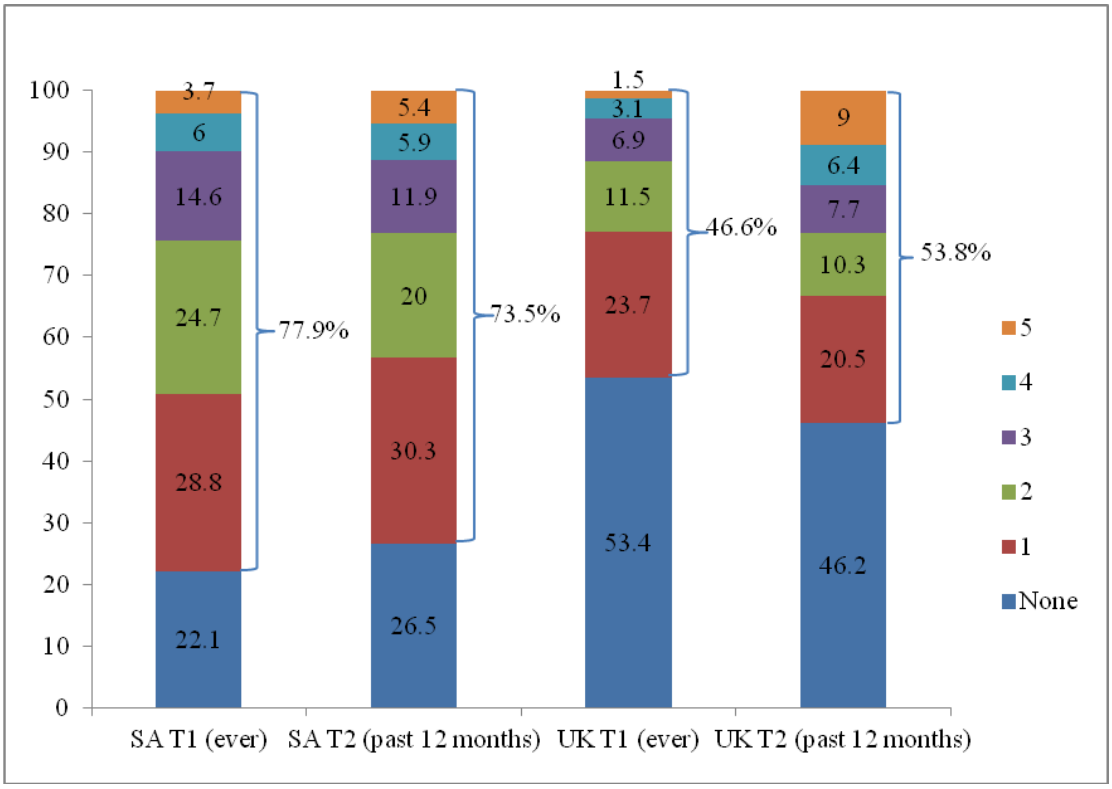
The frequency with which adolescents had viewed content risks was similar at T1 and T2 and occurred fairly frequently as shown in Figure 7.5 (next page).

Figure 7.5: Proportion of Adolescents who had looked at risky online content on more than one occasion and more than six occasions in the past year (T2) (%)



Adolescents were asked how many of the five types of content they had searched for and looked at on purpose. Findings showed that three-quarters of SA adolescents had viewed at least one type of risky content on purpose compared to just over half of UK adolescents at T2. A higher proportion of UK adolescents had looked at between 4-5 types of risky content on purpose compared to SA adolescents at T2 (see Figure 7.6, next page).

Figure 7.6: How many of the five types of risky content adolescents had viewed on purpose: Differences between SA and the UK at T1 and T2 (%)



In terms of gender, findings showed that males in both countries had significantly higher exposure to content about suicide and self-harm in the past 12 months than females. All findings for females comparing T1 and T2 were non-significant, suggesting that content risks remained fairly stable in this demographic across time (see Table 7.23, next page). All gender differences that emerged at T1 showing females were more likely to have been exposed to various types of risky online content did not emerge at T2, indicating that any gender gap was reduced across time (see Table 7.24, next page). No age differences were found, indicating that the frequency of exposure was fairly stable across age and between different time points. As such, younger adolescents were equally exposed to risky online content as older adolescents across time.

Table 7.23: Content Risks: Differences between Gender of Adolescents at T1 and T2 (Chi-square)

Content Risks	SA						UK					
	Male			Female			Male			Female		
	T1	T2	x^2	T1	T2	x^2	T1	T2	x^2	T1	T2	x^2
1. I have seen sexual pictures or videos on the internet	85.4% (n = 111)	87.8% (n = 72)	0.25	77.0% (n = 117)	80.7% (n = 96)	0.54	72.1% (n = 44)	75.8% (n = 25)	0.14	66.7% (n = 64)	69.8% (n = 37)	0.16
2. I have seen violent pictures or videos of physical fights, accidents, or abusive behaviour towards humans or animals	84.1% (n = 111)	89.2% (n = 74)	1.09	88.9% (n = 136)	84.0% (n = 100)	1.37	71.0% (n = 44)	84.8% (n = 28)	2.26	84.5% (n = 82)	79.2% (n = 42)	0.67
3. I have seen pictures or videos or read information that is mean or hateful to people of a different race, ethnicity or religion	70.2% (n = 92)	79.5% (n = 66)	2.27	87.6% (n = 134)	83.1% (n = 98)	1.11	71.0% (n = 44)	87.9% (n = 29)	3.46	83.3% (n = 80)	79.2% (n = 42)	0.39
4. I have seen information on the internet that supports extreme diets and eating habits	72.0% (n = 95)	77.1% (n = 64)	0.70	89.0% (n = 137)	87.4% (n = 104)	0.16	64.5% (n = 40)	72.7% (n = 24)	0.66	79.4% (n = 77)	83.0% (n = 44)	0.29
5. I have seen information on the internet about suicide or hurting oneself	49.6% (n = 65)	**63.4%** (n = 52)	3.88*	74.3% (n = 113)	67.2% (n = 80)	1.65	56.5% (n = 35)	**84.8%** (n = 28)	7.78**	81.2% (n = 78)	84.9% (n = 45)	0.32

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Table 7.24: Content Risks: Differences between Gender of Adolescents in SA and the UK (Chi-square)

Content Risks	SA						UK					
	T1			T2			T1			T2		
	Male	Female	x^2	Male	Female	x^2	Male	Female	x^2	Male	Female	x^2
1. I have seen sexual pictures or videos on the internet	85.4% (n = 111)	77.0% (n = 117)	3.20	87.8% (n = 72)	80.7% (n = 96)	1.80	72.1% (n = 44)	66.7% (n = 64)	0.52	75.8% (n = 25)	69.8% (n = 37)	0.36
2. I have seen violent pictures or videos of physical fights, accidents, or abusive behaviour towards humans or animals	84.1% (n = 111)	88.9% (n = 136)	1.41	89.2% (n = 74)	84.0% (n = 100)	1.08	71.0% (n = 44)	**84.5%** (n = 82)	4.23*	84.8% (n = 28)	79.2% (n = 42)	0.42
3. I have seen pictures or videos or read information that is mean or hateful to people of a different race, ethnicity or religion	70.2% (n = 92)	**87.6%** (n = 134)	13.08***	79.5% (n = 66)	83.1% (n = 98)	0.41	71.0% (n = 44)	83.3% (n = 80)	3.41	87.9% (n = 29)	79.2% (n = 42)	1.05
4. I have seen information on the internet that supports extreme diets and eating habits	72.0% (n = 95)	**89.0%** (n = 137)	13.40***	77.1% (n = 64)	87.4% (n = 104)	3.70	64.5% (n = 40)	**79.4%** (n = 77)	4.30*	72.7% (n = 24)	83.0% (n = 44)	1.30
5. I have seen information on the internet about suicide or hurting oneself	49.6% (n = 65)	**74.3%** (n = 113)	18.43*** †	63.4% (n = 52)	67.2% (n = 80)	0.31	56.5% (n = 35)	**81.2%** (n = 78)	11.37**	84.8% (n = 28)	84.9% (n = 45)	0.00

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

7.5 CYBERAGGRESSION AND CYBERBULLYING

A total of 85.4% (n = 245) of SA adolescents reported ever experiencing any of the eight online victimisation experiences, and nearly three-quarters (73.6%, n = 156) reported having had at least one online victimisation experience in the past 12 months. In the UK, nearly two-thirds of adolescents (64.2%, n = 115) had ever experienced at least one of the eight online victimisation behaviours and half reported this experience in the past 12 months at follow-up (50.8%, n = 60). Of those who experienced online victimisation, 37.8% (n = 104) of SA adolescents and 38.3% (n = 54) of UK adolescents reported having ever been cyberbullied indicating very similar rates at T1 for this subset of participants. A quarter of both SA (25.1%, n = 50) and UK adolescents 26.0% (n = 20) reported having been cyberbullied in the past year. This indicates both the potential continuation of cyberbullying and new acts of cyberbullying experienced in the past year. The extent of online victimisation is also evident in that 80.7% (n = 167) of SA adolescents and 71.7% (n = 66) of UK adolescents had blocked or prevented someone from contacting them in an online space in the past year, with 17.9% (n = 37) in SA and 9.8% (n = 9) in the UK having done so on more than 6 occasions in the past year.

Gender differences in perceived cyberbullying experiences indicated that females in SA were significantly more likely to have ever been cyberbullied (48.0%, n= 71) compared to males (26.0%, n = 33), $x^2(1, N = 275) = 14.05$, $p < .001$, $\varphi = .23$. However, there was no gender difference in cyberbullying experiences in the past 12 months in SA (males: 22.5%, n = 18, females: 27.8%, n = 32). No gender differences emerged at either T1 or T2 in the UK sample. No age differences emerged.

In order to examine cyberbullying in more detail, independent samples t-tests were conducted to assess significant differences in scores from the other study variables between those who experienced cyberbullying in the past 12 months and those who did not. Findings showed that risk perception was higher among those who had been cyberbullied in the UK, while in SA victims of cyberbullying engaged in a wider

range of of online risks overall as well as sexting and contact risks in particular. This suggests that, at least in the SA sample, cyberbullying is a reflection of more general online risk behaviours. As expected, victims of cyberbullying reported a wider range of online victimisation behaviours than non-victims in both countries. In SA, cyberbullying victims also reported more perpetration behaviour and privacy preservation actions (see Table 7.25).

Table 7.25: Differences between victims and non-victims of cyberbullying on the other study variables (T2) (t-test)

Study Variables	Cyberbullied - SA			Cyberbullied - UK		
	Yes	No	t	Yes	No	t
Time Spent Online	35.07	25.50	1.89	30.74	26.08	0.92
Online Behaviours	**6.18**	5.17	2.76**	6.40	6.07	0.57
Risk perception	-4.98	-4.99	0.01	**-7.11**	-11.15	2.07*
Online risks	**10.00**	8.15	3.17**	9.00	8.44	0.52
- Conduct risks	2.20	1.77	1.79	3.25	2.61	1.34
- Sexting	**1.92**	1.25	3.44**	0.95	0.81	0.51
- Contact risks	**1.86**	1.26	2.60*	0.90	1.07	-0.61
- Content risks	4.02	3.88	0.67	3.90	3.95	-0.11
Online victimisation	**3.86**	1.60	6.52*** †	**4.25**	2.04	3.71*** †
Online perpetration	**2.26**	1.10	3.43**	1.10	0.91	0.42
Privacy preservation	**3.42**	2.54	3.17**	2.20	2,35	-0.30

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Most SA adolescents also reported ever perpetrating any of the eight behaviours at T1 (77.0%, n = 221), and more than half (55.7%, n = 118) reported having done so in the past 12 months. In the UK, perpetration was reported by two in five adolescents at T1 (39.7%, n = 71) and a quarter of adolescents (24.6%, n = 29) in the past 12 months. As such, SA adolescents were more likely to admit perpetration. A negligible proportion of adolescents labelled their perpetration behaviours in the past year as cyberbullying, perhaps indicating some bias in viewing one's own actions as constituting cyberbullying[35].

Comparisons at T1 and T2 showed that a lower proportion of SA adolescents experienced or perpetrated any of the behaviours listed at T2 compared to T1, as is

[35] This question was included in the survey at follow-up but was not present at T1.

expected given the different time frames. However, experiences in the UK indicated less variability between T1 and T2 and, thus, more consistent experiences. Experiences at T2 were fairly high. For example, more than half of SA adolescents (54.4%, n = 112) and three in five (62.5%, n = 50) UK adolescents had been called a hurtful name or received a rude or hurtful message or comment online. This was the most common victimisation behaviour reported in both countries. In SA, this was followed by receiving messages as if they were coming from another person, having rumours or gossip spread online, receiving threats and having an embarrassing picture posted online. In the UK, having an embarrassing picture posted online was most common followed by having private messages posted or forwarded for others to see, having rumours or gossip spread online, receiving messages as if they were coming from another person and receiving online threats (see Table 7.26 on p. 277).

Many of these behaviours were also experienced on more than one occasion (see Figure 7.7, next page). At T2, one in ten adolescents had been called a hurtful name or received a rude or hurtful message or comment more than six times in the past 12 months (SA: 9.7%, n = 20; UK: 13.8%, n = 11). This behaviour was also most likely to be perpetrated by adolescents. In SA, 38.9% (n = 107) had called someone a hurtful name or sent a rude or hurtful message or comment at T1 and 20.8% (n = 42) had done so in the past 12 months. In the UK, 15.4% (n = 21) of adolescents admitted perpetrating this behaviour at T1 and 14.5% (n = 11) admitted perpetration of this behaviour in the past 12 months.

Figure 7.7: Proportion of Online Victimisation experienced on more than one occasion (%)

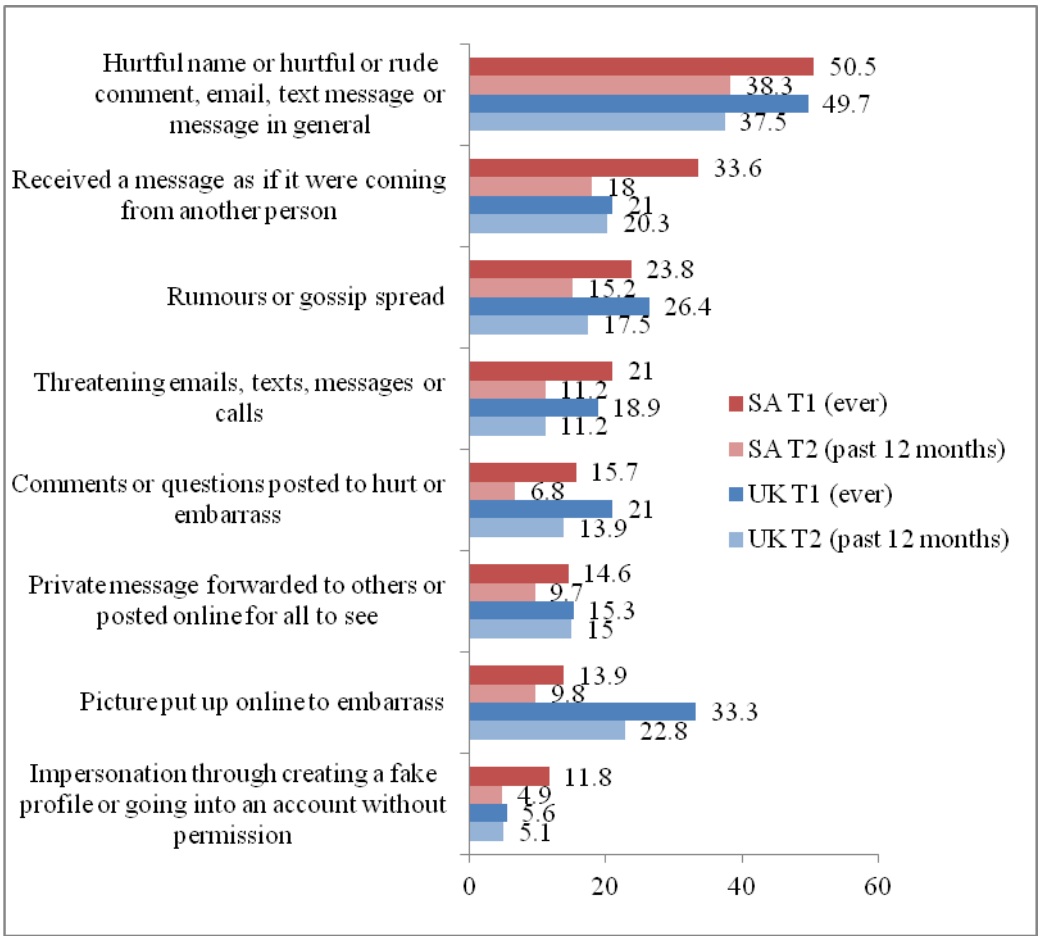


Table 7.26: Online Victimisation: Differences Between Adolescents at T1 and T2 (Chi-square)

		SA			UK		
Cyberaggression		**T1**	**T2**	x^2	**T1**	**T2**	x^2
1. Hurtful name or hurtful or rude comment, email, text message or message in general	Victim	**74.0%** (n = 208)	54.4% (n = 112)	20.37*** †	67.8% (n = 97)	62.5% (n = 50)	0.65
	Perpetrator	**66.9%** (n = 184)	43.1% (n = 87)	26.98*** †	33.8% (n = 46)	27.6% (n = 21)	0.87
2. Rumours or gossip spread	Victim	**41.3%** (n = 116)	29.9% (n = 61)	6.60*	**45.8%** (n = 66)	31.2% (n = 25)	4.53*
	Perpetrator	**23.6%** (n = 65)	14.9% (n = 30)	5.64*	11.8% (n = 16)	10.5% (n = 8)	0.07
3. Threatening emails, texts, messages or calls	Victim	**36.3%** (n = 102)	24.8% (n = 51)	7.35**	30.1% (n = 43)	26.2% (n = 21)	0.37
	Perpetrator	13.9% (n = 38)	9.9% (n = 20)	1.71	4.4% (n = 6)	5.3% (n = 4)	0.08
4. Private message forwarded to others or posted online for all to see	Victim	**29.6%** (n = 83)	19.9% (n = 41)	5.92*	27.8% (n = 40)	31.2% (n = 25)	0.30
	Perpetrator	16.4% (n = 45)	17.8% (n = 36)	0.18	17.6% (n = 24)	17.3% (n = 13)	0.003
5. Picture put up online to embarrass	Victim	29.3% (n = 82)	25.4% (n = 52)	0.91	**53.5%** (n = 77)	38.0% (n = 30)	4.91*
	Perpetrator	14.5% (n = 40)	13.4% (n = 27)	0.13	20.1% (n = 27)	15.8% (n = 12)	0.61
6. Impersonation through creating a fake profile or going into an account without permission	Victim	**27.1%** (n = 76)	14.6% (n = 30)	10.84**	18.2% (n = 26)	12.7% (n = 10)	1.14
	Perpetrator	15.3% (n = 42)	9.9% (n = 20)	2.97	5.9% (n = 8)	2.6% (n = 2)	1.15
7. Received a message as if it was coming from another person/ Sent a message as if it was coming from another person	Victim	**54.6%** (n = 153)	37.6% (n = 77)	13.85***	**42.0%** (n = 60)	27.8% (n = 22)	4.35*
	Perpetrator	33.5% (n = 92)	23.9% (n = 48)	5.13*	17.0% (n = 23)	10.5% (n = 8)	1.65
8. Comments or questions posted to hurt or embarrass	Victim	**32.1%** (n = 90)	18.0% (n = 37)	12.16***	28.7% (n = 41)	27.8% (n = 22)	0.02
	Perpetrator	11.4% (n = 31)	9.9% (n = 20)	0.27	4.5% (n = 6)	7.9% (n = 6)	1.05

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Gender differences showed that, where significant differences emerged, victimisation and perpetration behaviours were lower at T2 than at T1 as expected. For example, males and females were both less likely to have have called someone a hurtful name at T2 compared to T1 (see Table 7.27, next page). Few differences between T1 and T2 emerged in the UK. Considering the different time frames of T1 and T2, the findings showed that victimisation and perpetration behaviours were fairly consistent in the past 12 months. Findings further showed that females in SA were less likely to have been threatened online compared to males at T2, but were more likely to have sent messages as if they were coming from another person. Findings between males and females at T2 were non-significant in the UK (see Table 7.28, p. 280).

Table 7.27: Online Victimisation: Differences According to Gender of Adolescents at T1 and T2 (Chi-square)

		SA						UK					
		Male			Female			Male			Female		
Cyberaggression		**T1**	**T2**	x^2	**T1**	**T2**	x^2	**T1**	**T2**	x^2	**T1**	**T2**	x^2
1. Hurtful name or hurtful or rude comment, email, text message or message in general	Victim	61.7% (n = 79)	50.6% (n = 43)	2.59	**84.3%** (n = 129)	58.1% (n = 68)	23.06*** †	64.8% (n = 35	67.7% (n = 21)	0.08	69.7% (n = 62)	59.2% (n = 29)	1.55
	Perpetrator	**62.6%** (n = 77)	43.2% (n = 35)	7.42**	**70.4%** (n = 107)	44.4% (n = 52)	18.42*** †	33.3% (n = 17)	36.7% (n = 11)	0.09	34.1% (n = 29)	21.7% (n = 10)	2.19
2. Rumours or gossip spread	Victim	34.4% (n = 44)	27.7% (n = 23)	1.03	**47.1%** (n = 72)	32.5% (n = 38)	5.84*	40.7% (n = 22)	35.5% (n = 11)	0.23	**48.9%** (n = 44)	28.6% (n = 14)	5.39*
	Perpetrator	20.3% (n = 25)	11.1% (n = 9)	2.99	26.3% (n = 40)	17.9% (n = 21)	2.64	13.7% (n = 7)	13.3% (n = 4)	0.002	10.6% (n = 9)	8.7% (n = 4)	0.12
3. Threatening emails, texts, messages or calls	Victim	**32.0%** (n = 41)	16.5% (n = 14)	6.46*	39.9% (n = 61)	31.6% (n = 37)	1.95	24.1% (n = 13)	25.8% (n = 8)	0.03	33.7% (n = 30)	26.5% (n = 13)	0.76
	Perpetrator	17.2% (n = 21)	12.3% (n = 10)	0.89	11.2% (n = 17)	8.5% (n = 10)	0.51	2.0% (n = 1)	10.0% (n = 3)	2.60	5.9% (n = 5)	2.2% (n = 1)	0.94
4. Private message forwarded to others or posted online for all to see	Victim	26.6% (n = 34)	20.0% (n = 17)	1.21	**32.2%** (n = 49)	20.5% (n = 24)	4.60*	18.5% (n = 10)	25.8% (n = 8)	0.63	33.3% (n = 30)	34.7% (n = 17)	0.03
	Perpetrator	19.5% (n = 24)	19.8% (n = 16)	0.002	13.8% (n = 21)	17.1% (n = 20)	0.55	7.8% (n = 4)	20.7% (n = 6)	2.79	23.5% (n = 20)	15.2% (n = 7)	1.26
5. Picture put up online to embarrass	Victim	25.2% (n = 32)	20.2% (n = 17)	0.70	32.7% (n = 50)	29.9% (n = 35)	0.24	37.0% (n = 20)	25.8% (n = 8)	1.12	**63.3%** (n = 57)	45.8% (n = 22)	3.92*
	Perpetrator	13.8% (n = 17)	13.6% (n = 11)	0.002	15.1% (n = 23)	13.7% (n = 16)	0.11	15.7% (n = 8)	13.3% (n = 4)	0.08	22.9% (n = 19)	17.4% (n = 8)	0.54
6. Impersonation through creating a fake profile or going into an account without permission	Victim	25.2% (n = 32)	14.3% (n = 12)	3.65	**28.8%** (n = 44)	15.4% (n = 18)	6.70*	16.7% (n = 9)	12.9% (n = 4)	0.22	19.1% (n = 17)	12.5% (n = 6)	0.97
	Perpetrator	18.7% (n = 23)	12.3% (n = 10)	1.45	12.5% (n = 19)	8.5% (n = 10)	1.07	7.8% (n = 4)	6.7% (n = 2)	0.04	4.7% (n = 4)	0.0% (n = 0)	2.23
7. Received a message as if it was coming from another person/ Sent a message as if it was coming from another person	Victim	43.3% (n = 55)	34.5% (n = 29)	1.63	**64.1%** (n = 98)	41.0% (n = 48)	14.16***	31.5% (n = 17)	38.7% (n = 12)	0.46	**48.3%** (n = 43)	20.8% (n = 10)	9.93**
	Perpetrator	23.6% (n = 29)	16.2% (n = 13)	1.59	**41.4%** (n = 63)	29.1% (n = 34)	4.40*	17.6% (n = 9)	16.7% (n = 5)	0.01	16.7% (n = 14)	6.5% (n = 3)	2.69
8. Comments or questions posted to hurt or embarrass	Victim	24.4% (n = 31)	15.3% (n = 13)	2.57	**38.6%** (n = 59)	19.8% (n = 23)	10.93**	24.1% (n = 13)	22.6% (n = 7)	0.02	31.5% (n = 28)	31.2% (n = 15)	0.001
	Perpetrator	10.7% (n = 13)	11.1% (n = 9)	0.01	12.0% (n = 18)	9.4% (n = 11)	0.46	6.1% (n = 3)	6.7% (n = 2)	0.01	3.5% (n = 3)	8.7% (n = 4)	1.58

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

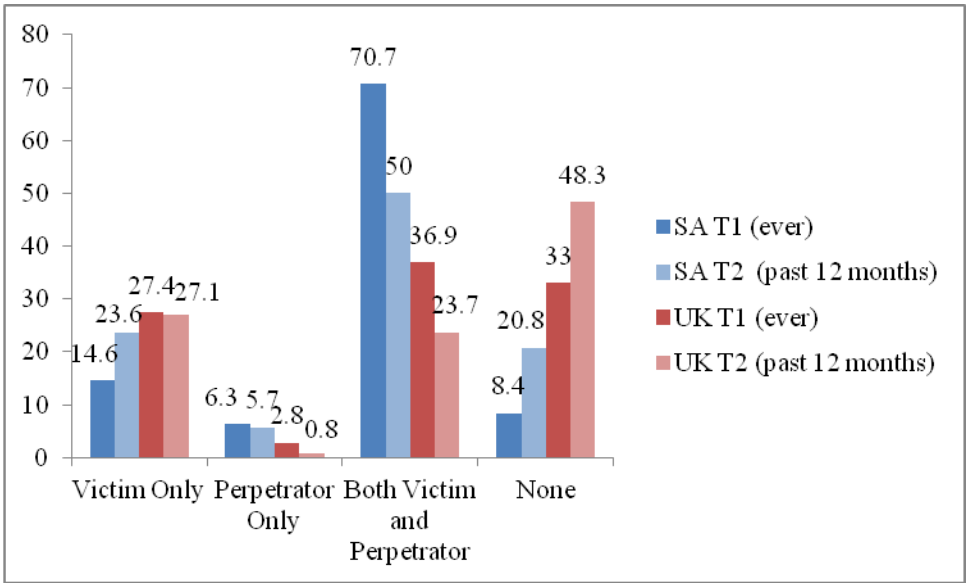
Table 7.28: Online Victimisation: Differences According to Gender of Adolescents at T1 and T2 (Chi-square)

		SA						UK					
		T1			T2			T1			T2		
Cyberaggression		**Male**	**Female**	x^2	**Male**	**Female**	x^2	**Male**	**Female**	x^2	**Male**	**Female**	x^2
1. Hurtful name or hurtful or rude comment, email, text message or message in general	Victim	61.7% (n = 79)	**84.3%** (n = 129)	18.50***	50.6% (n = 43)	58.1% (n = 68)	1.13	64.8% (n = 35)	69.7% (n = 62)	0.36	67.7% (n = 21)	59.2% (n = 29)	0.59
	Perpetrator	62.6% (n = 77)	70.4% (n = 107)	1.87	43.2% (n = 35)	44.4% (n = 52)	0.03	33.3% (n = 17)	34.1% (n = 29)	0.01	36.7% (n = 11)	21.7% (n = 10)	2.02
2. Rumours or gossip spread	Victim	34.4% (n = 44)	**47.1%** (n = 72)	4.63*	27.7% (n = 23)	32.5% (n = 38)	0.52	40.7% (n = 22)	48.9% (n = 44)	0.90	35.5% (n = 11)	28.6% (n = 14)	0.42
	Perpetrator	20.3% (n = 25)	26.3% (n = 40)	1.35	11.1% (n = 9)	17.9% (n = 21)	1.74	13.7% (n = 7)	10.6% (n = 9)	0.30	13.3% (n = 4)	8.7% (n = 4)	0.41
3. Threatening emails, texts, messages or calls	Victim	32.0% (n = 41)	39.9% (n = 61)	1.85	16.5% (n = 14)	**31.6%** (n = 37)	5.99*	24.1% (n = 13)	33.7% (n = 30)	1.48	25.8% (n = 8)	26.5% (n = 13)	0.01
	Perpetrator	17.2% (n = 21)	11.2% (n = 17)	2.06	12.3% (n = 10)	8.5% (n = 10)	0.76	2.0% (n = 1)	5.9% (n = 5)	1.16	10.0% (n = 3)	2.2% (n = 1)	2.23
4. Private message forwarded to others or posted online for all to see	Victim	26.6% (n = 34)	32.2% (n = 49)	1.07	20.0% (n = 17)	20.5% (n = 24)	0.01	18.5% (n = 10)	33.3% (n = 30)	3.69	25.8% (n = 8)	34.7% (n = 17)	0.70
	Perpetrator	19.5% (n = 24)	13.8% (n = 21)	1.61	19.8% (n = 16)	17.1% (n = 20)	0.23	7.8% (n = 4)	**23.5%** (n = 20)	5.40*	20.7% (n = 6)	15.2% (n = 7)	0.37
5. Picture put up online to embarrass	Victim	25.2% (n = 32)	32.7% (n = 50)	1.88	20.2% (n = 17)	29.9% (n = 35)	2.39	37.0% (n = 20)	**63.3%** (n = 57)	9.38**	25.8% (n = 8)	45.8% (n = 22)	3.21
	Perpetrator	13.8% (n = 17)	15.1% (n = 23)	0.09	13.6% (n = 11)	13.7% (n = 16)	0.00	15.7% (n = 8)	22.9% (n = 19)	1.02	13.3% (n = 4)	17.4% (n = 8)	0.23
6. Impersonation through creating a fake profile or going into an account without permission	Victim	25.2% (n = 32)	28.8% (n = 44)	0.45	14.3% (n = 12)	15.4% (n = 18)	0.05	16.7% (n = 9)	19.1% (n = 17)	0.13	12.9% (n = 4)	12.5% (n = 6)	0.00
	Perpetrator	18.7% (n = 23)	12.5% (n = 19)	2.02	12.3% (n = 10)	8.5% (n = 10)	0.76	7.8% (n = 4)	4.7% (n = 4)	0.57	6.7% (n = 2)	0.0% (n = 0)	3.15
7. Received a message as if it was coming from another person/ Sent a message as if it was coming from another person	Victim	43.3% (n = 55)	**64.1%** (n = 98)	12.05**	34.5% (n = 29)	41.0% (n = 48)	0.88	31.5% (n = 17)	**48.3%** (n = 43)	3.91*	38.7% (n = 12)	20.8% (n = 10)	3.00
	Perpetrator	23.6% (n = 29)	**41.4%** (n = 63)	9.75**	16.2% (n = 13)	**29.1%** (n = 34)	4.29*	17.6% (n = 9)	16.7% (n = 14)	0.02	16.7% (n = 5)	6.5% (n = 3)	1.98
8. Comments or questions posted to hurt or embarrass	Victim	24.4% (n = 31)	**38.6%** (n = 59)	6.37*	15.3% (n = 13)	19.8% (n = 23)	0.69	24.1% (n = 13)	31.5% (n = 28)	0.90	22.6% (n = 7)	31.2% (n = 15)	0.71
	Perpetrator	10.7% (n = 13)	12.0% (n = 18)	0.12	11.1% (n = 9)	9.4% (n = 11)	0.15	6.1% (n = 3)	3.5% (n = 3)	0.49	6.7% (n = 2)	8.7% (n = 4)	0.10

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

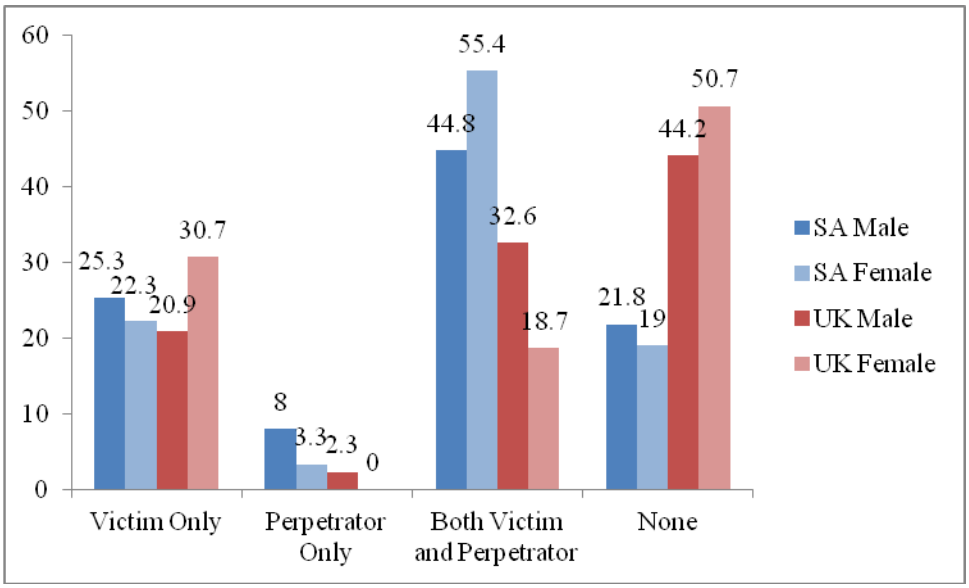
Victimisation and perpetration behaviours were linked. At both T1 and T2 there was a strong correlation between the variables for the adolescent sample overall (r = .56, p = .001 and r = .60, p < .001 respectively). When examining the roles adolescents played in negative online experiences using categories (i) victim only, (ii) perpetrator only, (iii) both victim and perpetrator or (iv) none, chi-square analyses showed that SA adolescents were most likely to be both a victim and perpetrator at T1 and T2. This was also the case at T1 in the UK sample, but most UK adolescents at T2 did not experience victimisation nor perpetrated any of the negative online behaviours (see Figure 7.8). The difference between T1 and T2 in SA was significant, x^2 (3, N = 499) = 27.58, p < .001, V = .24. The difference between T1 and T2 in the UK was also significant, x^2 (3, N = 297) = 9.50, p = .023, V = .18.

Figure 7.8: Role in Cyberaggression in SA and the UK (%)



Males and females in the UK were more likely to be neither a victim nor perpetrator at T2, while SA males and females were more likely to be both a victim and perpetrator. UK females were also more likely to be a victim only in online victimisation behaviours (see Figure 7.9, next page).

Figure 7.9: Role in Cyberaggression according to Gender (T2) (%)



Emotional experiences as a result of victimisation remained stable between T1 and T2. However, while SA adolescents were less likely to have had days where they felt that they did not want to go to school in the past 12 months compared to ever, UK adolescents were significantly more likely to report having felt this way in the past 12 months (see Table 7.29).

Table 7.29: Emotional Experiences as a Result of Online Victimisation: Differences Between Adolescents at T1 and T2 (Chi-square)

Emotional Experiences	SA			UK		
	T1	T2	x^2	T1	T2	x^2
Been hurt or made to feel sad about something someone said to you on the internet	43.0% (n = 120)	34.8% (n = 71)	3.32	36.1% (n = 52)	43.0% (n = 34)	1.03
Been scared or worried about something someone said to you on the internet.	34.9% (n = 97)	28.2% (n = 58)	2.47	28.0% (n = 40)	26.6% (n = 21)	0.05
Did not want to go to school on some days because of something someone did or said to you on the internet.	**27.3%** (n = 76)	17.0% (n = 35)	7.17**	21.0% (n = 30)	**32.9%** (n = 26)	3.84*

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Similarly, while there were no differences between adolescents in their emotional experiences between the two countries, UK adolescents were significantly more likely

to have not wanted to go to school on some days due to an online experience compared to SA adolescents at T2 (see Table 7.29, previous page).

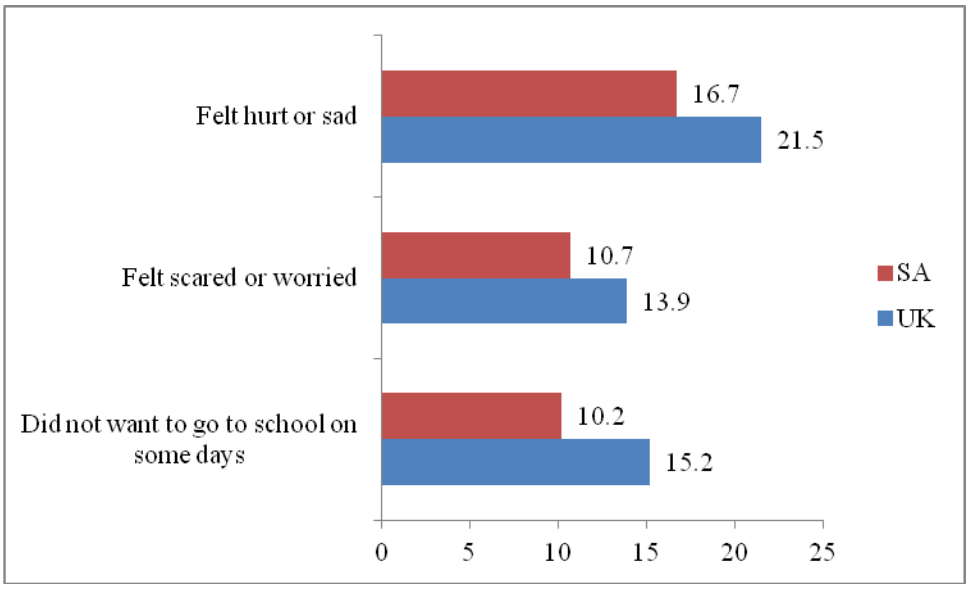
Table 7.30: Emotional Experiences as a Result of Online Victimisation: Differences Between Adolescents SA and the UK (Chi-square)

Emotional Experiences	T1			T2		
	SA	UK	x^2	SA	UK	x^2
Been hurt or made to feel sad about something someone said to you on the internet	43.0% (n = 120)	36.1% (n = 52)	1.87	34.8% (n = 71)	43.0% (n = 34)	1.65
Been scared or worried about something someone said to you on the internet.	34.9% (n = 97)	28.0% (n = 40)	2.06	28.2% (n = 58)	26.6% (n = 21)	0.07
Did not want to go to school on some days because of something someone did or said to you on the internet.	27.3% (n = 76)	21.0% (n = 30)	2.03	17.0% (n = 35)	**32.9%** (n = 26)	8.60**

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Roughly one in ten adolescents reported the emotional experiences more than once in the past 12 months, with a higher proportion of UK adolescents reporting these experiences (see Figure 7.10).

Figure 7.10: Proportion of Adolescents who reported emotional experiences on more than one occasion in the past year (%)

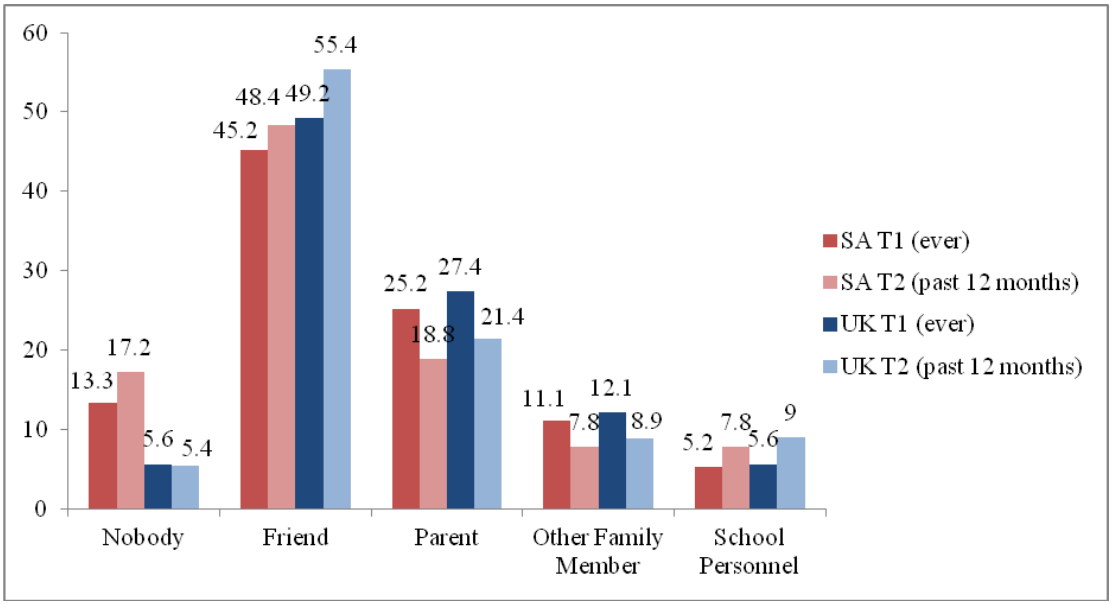


Although emotional experiences remained fairly consistent between T1 and T2 for males and females, SA females were significantly less likely to have not wanted to go to school on some days due to something that someone said or did to them online while UK females were significantly more likely to report feeling this way in the past 12 months (see Table 7.31 on p. 286). Findings also showed that a higher proportion of females reported emotional experiences than males (see Table 7.32 on p. 286). No age related differences were found.

Most of the cyberbullying experiences reported by adolescents at T1 were perpetrated by individuals known to the victim (SA: 75.7%, n = 87; UK: 60.06%, n = 43). Of the cyberbullying experiences reported in the past 12 months, most adolescents in SA knew the person responsible (68.5%, n = 37) but just under half of adolescents in the UK knew the person responsible (48.5%, n = 16), indicating that at T2 in the UK the perpetrator was more likely to have been anonymous.

Adolescents were most likely to tell a friend about their experience of cyberbullying in the past 12 months. One in five adolescents told a parent about the incident. A higher proportion of SA adolescents told nobody about the cyberbullying incident in the past 12 months compared to UK adolescents (see Figure 7.11, next page).

Figure 7.11: Who adolescents told about cyberbullying incidents: Differences between T1 and T2 (%)



One in ten adolescents (SA: 16.1%, n = 32; UK: 10.4%, n = 8) said that they witnessed cyberbullying often or very often in their daily use of ICTs in the past year.

Table 7.31: Emotional Experiences as a Result of Online Victimisation: Differences According to Gender of Adolescents at T1 and T2 (Chi-square)

	SA						UK					
Emotional Experiences	**Male**			**Female**			**Male**			**Female**		
	T1	**T2**	x^2	**T1**	**T2**	x^2	**T1**	**T2**	x^2	**T1**	**T2**	x^2
Been hurt or made to feel sad about something someone said to you on the internet	25.2% (n = 32)	20.5% (n = 17)	0.62	57.9% (n = 88)	46.2% (n = 54)	3.66	14.8% (n = 8)	25.8% (n = 8)	1.56	48.9% (n = 44)	54.2% (n = 26)	0.35
Been scared or worried about something someone said to you on the internet.	19.0% (n = 24)	12.9% (n = 11)	1.37	48.0% (n = 73)	39.3% (n = 46)	2.03	20.4% (n = 11)	12.9% (n = 4)	0.76	32.6% (n = 29)	35.4% (n = 17)	0.11
Did not want to go to school on some days because of something someone did or said to you on the internet.	19.2% (n = 24)	11.8% (n = 10)	2.06	**34.0%** (n = 52)	21.4% (n = 25)	5.18*	13.0% (n = 7)	9.7% (n = 3)	0.21	25.8% (n = 23)	**47.9%** (n = 23)	6.81**

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Table 7.32: Emotional Experiences as a Result of Online Victimisation: Differences According to Gender of Adolescents at T1 and T2 (Chi-square)

	SA						UK					
Emotional Experiences	**T1**			**T2**			**T1**			**T2**		
	Male	**Female**	x^2	**Male**	**Female**	x^2	**Male**	**Female**	x^2	**Male**	**Female**	x^2
Been hurt or made to feel sad about something someone said to you on the internet	25.2% (n = 32)	**57.9%** (n = 88)	30.18*** †	20.5% (n = 17)	**46.2%** (n = 54)	13.98***	14.8% (n = 8)	**48.9%** (n = 44)	16.99*** †	25.8% (n = 8)	**54.2%** (n = 26)	6.18*
Been scared or worried about something someone said to you on the internet.	19.0% (n = 24)	**48.0%** (n = 73)	25.47*** †	12.9% (n = 11)	**39.3%** (n = 46)	16.91***	20.4% (n = 11)	32.6% (n = 29)	2.49	12.9% (n = 4)	**35.4%** (n = 17)	4.89*
Did not want to go to school on some days because of something someone did or said to you on the internet.	19.2% (n = 24)	**34.0%** (n = 52)	7.57**	11.8% (n = 10)	21.4% (n = 25)	3.17	13.0% (n = 7)	25.8% (n = 23)	3.36	9.7% (n = 3)	**47.9%** (n = 23)	12.47*** †

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

7.6 TRADITIONAL BULLYING AND ITS LINK TO CYBERBULLYING

At follow-up, adolescents were asked about traditional bullying experiences in the past 12 months (discussed in section 4.6.3). Findings showed that 72.4% (n = 154) of SA adolescents and 43.2% (n = 51) of UK adolescents had experienced at least one face-to-face victimisation experience in the past 12 months. The difference between the two countries was significant, x^2 (1, N = 424) = 16.80, $p < .01$, φ = .22. A high proportion of these experiences were labelled as bullying experiences by adolescents, with 42.5% (n = 79) in SA and 39.4% (n = 28) in the UK reporting being bullied in the past year. The difference between the two countries was non-significant. Cases of face-to-face bullying were reportedly most likely to occur in school or just after school time, followed by social events like parties.

Experiences between the two countries were very similar. Just over half of adolescents reported being called a hurtful name or being made fun of or teased at least once in the past year. A high proportion had also been socially excluded or had rumours or gossip spread about them. A third of UK adolescents and just over a quarter of SA adolescents had been threatened in the past year, and over a quarter of adolescents in both countries reported being physically hurt in the past 12 months (see Table 7.33).

Table 7.33: Face-to-face victimisation experiences in the past year of SA and UK adolescents (Chi-square)

Face-to-face Victimisation Experiences (past 12 months)	SA	UK	x^2
Called hurtful name, been made fun of you or teased in a mean way face to face	52.0% (n = 105)	54.9% (n = 39)	0.18
Threatened to be hurt in any way	27.7% (n = 56)	33.8% (n = 24)	0.94
Been left out of things on purpose, been excluded from a group or ignored on purpose	48.5% (n = 97)	51.4% (n = 37)	0.18
Been lied about, had someone spread rumours or gossip about them or had someone try to make others dislike them	50.7% (n = 102)	43.7% (n = 31)	1.05
Been hit, kicked, punched, slapped or pushed	27.4% (n = 55)	27.8% (n = 20)	0.01
Belongings been damaged or had something taken away	19.9% (n = 40)	29.2% (n = 21)	2.62

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

A total of 57.5% (n = 122) of SA adolescents and 19.5% (n = 23) of UK adolescents admitted perpetrating at least one of these behaviours in the past year, but a negligible proportion

labelled the perpetration action as bullying. Individual items showed that twice as many SA adolescents admitted to having called someone a hurtful name, made fun of someone or teased someone. All other perpetration actions were similar between the two countries. Over a quarter of SA adolescents and one in five UK adolescents excluded someone socially, while 19.7% (n = 39) of SA adolescents and 12.7% (n = 9) of UK adolescents physically hurt someone in the past 12 months (see Table 7.34).

Table 7.34: Face-to-face perpetration behaviours in the past year of SA and UK adolescents (Chi-square)

Face-to-face Perpetration (past 12 months)	**SA**	**UK**	x^2
Called someone a hurtful name, made fun of someone, or teased someone in a mean way face to face	**44.2%** (n = 88)	26.8% (n = 19)	6.67*
Threatened to hurt someone in any way	18.5% (n = 37)	11.3% (n = 8)	1.98
Left someone out of things on purpose, excluded someone from a group or ignored someone on purpose	28.3% (n = 56)	18.6% (n = 13)	2.55
Told lies about someone, spread rumours or gossip about someone, or tried to make others dislike someone	16.0% (n = 32)	7.0% (n = 5)	3.57
Hit, kicked, punched, slapped or pushed someone	19.6% (n = 39)	12.7% (n = 9)	1.72
Damaged someone's belongings or taken something away from someone	7.0% (n = 14)	7.0% (n = 5)	0.00

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Few gender differences were found for face-to-face victimisation, but females in both countries were nearly twice as likely to have been excluded socially than males. In SA, males were also more likely to experience physical aggression. However, there was no gender difference for this item in the UK (See Table 7.35, next page).

Table 7.35: Face-to-face victimisation experiences in the past year of SA and UK adolescents (Chi-square)

Face-to-face Victimisation Experiences (past 12 months)	SA		x^2	UK		x^2
	Male	**Female**		**Male**	**Female**	
Called hurtful name, been made fun of you or teased in a mean way face to face	50.0% (n = 41)	53.4% (n = 62)	0.23	53.6% (n = 15)	55.8% (n = 24)	0.03
Threatened to be hurt in any way	33.3% (n = 27)	24.8% (n = 29)	1.72	39.3% (n = 11)	30.2% (n = 13)	0.62
Been left out of things on purpose, been excluded from a group or ignored on purpose	33.8% (n = 27)	**60.3%** (n = 70)	13.40***	32.1% (n = 9)	**63.6%** (n = 28)	6.79**
Been lied about, had rumours/gossip spread about you or someone tried to make others dislike you	43.2% (n = 35)	56.9% (n = 66)	3.58	44.4% (n = 12)	43.2% (n = 19)	0.01
Been hit, kicked, punched, slapped or pushed	**40.7%** (n = 33)	19.0% (n = 22)	11.24**	32.1% (n = 9)	25.0% (n = 11)	0.44
Belongings been damaged or had something taken away	23.5% (n = 19)	18.1% (n = 21)	0.85	35.7% (n = 10)	25.0% (n = 11)	0.95

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

No gender differences emerged for perpetration behaviours in the UK, but males in SA were twice as likely to have threatened to hurt or to have actually hurt someone in the past year compared to females (See Table 7.36). No age differences were found for any of the victimisation or perpetration behaviours.

Table 7.36: Face-to-face perpetration behaviours in the past year of SA and UK adolescents (Chi-square)

Face-to-face Perpetration (past 12 months)	SA		x^2	UK		x^2
	Male	**Female**		**Male**	**Female**	
Called someone a hurtful name, made fun of someone, or teased someone in a mean way face to face	40.5% (n = 32)	47.4% (n = 55)	0.91	18.5% (n = 5)	31.8% (n = 14)	1.51
Threatened to hurt someone in any way	**26.2%** (n = 21)	12.9% (n = 15)	5.60*	11.1% (n = 3)	11.4% (n = 5)	0.001
Left someone out of things on purpose, excluded someone from a group or ignored someone on purpose	24.1% (n = 19)	30.4% (n = 35)	0.95	7.4% (n = 2)	25.6% (n = 11)	3.62
Told lies about someone, spread rumours or gossip about someone, or tried to make others dislike someone	15.0% (n = 12)	17.2% (n = 20)	0.17	7.4% (n = 2)	6.8% (n = 3)	0.01
Hit, kicked, punched, slapped or pushed someone	**29.1%** (n = 23)	12.9% (n = 15)	7.84**	7.4% (n = 2)	15.9% (n = 7)	1.09
Damaged someone's belongings or taken something away from someone	8.8% (n = 7)	6.0% (n = 7)	0.53	7.4% (n = 2)	6.8% (n = 3)	0.01

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † - medium effect, †† = large effect)

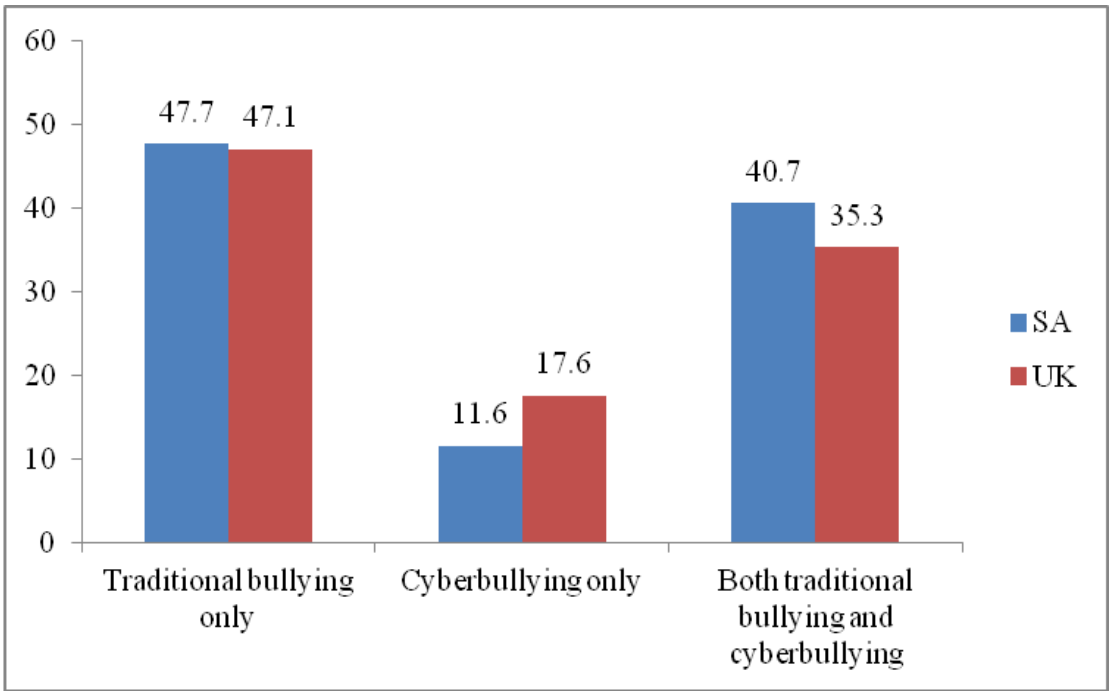
Scores for the range (out of 6) and frequency (out of 24) of face-to-face victimisation and perpetration experiences were calculated and independent samples t-tests analyses found that

SA adolescents had higher mean face-to-face victimisation experiences (M = 2.15, SD = 1.89, SE = .13) compared to UK adolescents (M = 1.46, SD = 2.02, SE = .19), t(328) = 3.10, p = .002, r = .17. SA adolescents also reported a wider range of face-to-face perpetration behaviours (M = 1.25, SD = 1.54, SE = .11) than UK adolescents (M = 0.50, SD = 1.20, SE = .11), t(293) = 4.95, p < .001, r = .08. However, no differences in frequency were found between the two countries for either victimisation and perpetration, and no gender or age differences emerged.

As with cyberbullying, offline victimisation and perpetration behaviours were highly positively correlated (r = .54, p < .001). High positive correlations were also found when comparing online and offline victimisation (r = .61, p < .001) and perpetration (r = .68, p < .001) behaviours, suggesting that online and offline experiences are linked.

Adolescents were categorised according to those who had been bullied face-to-face only, those who had been cyberbullied only, those who were bullied both face-to-face and online as well as those who did not report any bullying in either context. Findings showed that nearly half of adolescents in both countries experienced some form of bullying in the past year either online, offline or in both contexts (SA: 47.5%, n = 86; UK: 47.9%, n = 34). Of those who experienced some form of bullying, nearly half reported face-to-face bullying only and two in five SA adolescents and a third of UK adolescents reported both online and offline bullying. A smaller proportion of adolescents experienced cyberbullying only: one in ten cases in SA and nearly two in ten in the UK were online victims of bullying only (see Figure 7.12, next page).

Figure 7.12: SA and UK bullying victims according to type of bullying experienced (%)

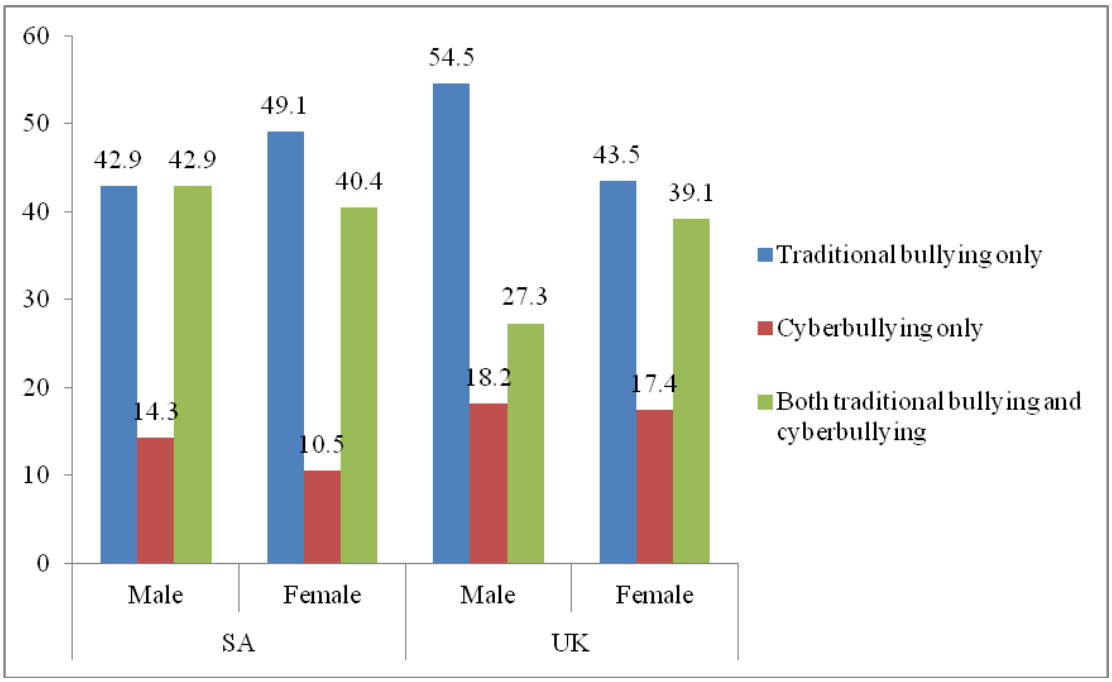


(Note: This graph reflects only those participants who indicated that they had experienced some form of bullying either online or offline and shows the proportion who experienced each type of bullying only and those who experienced both forms of bullying)

These findings show that face-to-face bullying is a major and ongoing problem in both countries and that a large proportion of adolescents experienced both forms of bullying within the past year indicating the link between cyberbullying and traditional bullying.

Females in both countries were more likely to report some form of bullying (SA: 53.8%, n = 57; UK: 45.9%, n = 23) compared to males (SA: 39.4%, n = 28; UK: 39.3%, n = 11). Males and females in the UK were more likely to be cyberbullying victims only compared to SA adolescents. A similar proportion of males and females in SA were traditional bullying victims only or a combination of traditional and cyberbullying victims, whereas males in the UK were much more likely to be traditional victims only (see Figure 7.13).

Figure 7.13: Type of bullying experienced by victims according to gender in SA and the UK (%)



7.7 CHANGES TO RULES ABOUT ICT USE AT HOME AND AT SCHOOL

In order to contextualise some of the findings in risk perception and online risk behaviours as well as victimisation and perpetration, adolescents were asked to report on whether rules about ICTs had become stricter in the past year. Most SA adolescents indicated that there had been no change in how strict the rules were at home in the past 12 months (71.3%, n = 139) while 16.9% (n = 33) said that the rules had become less strict. Only one in ten SA adolescents (11.8%, n = 23) said that the rules had become more strict over the past 12 months. Similarly, in the UK, two-thirds of adolescents (67.6%, n = 48) said that there had been no change in how strict the rules were about ICTs at home in the past 12 months, one in five (18.3%, n = 13) said rules had become less strict and 14.1% (n = 10) stated that rules had become more strict at home in the past 12 months.

Although there was largely no change in rules about ICTs in the home context, changes were found in the school context at follow-up. Nearly half of SA adolescents (48.2%, n = 94) said that the rules around ICTs at school had become more strict in the past 12 months, a similar proportion said that rules had stayed the same (46.2%, n = 90), while 5.6% (n = 11) said that rules had become less strict. Similarly, two in five UK adolescents (39.1%, n = 27) said that schools rules about ICTs had become more strict in the past 12 months, just over half (55.1%,

n = 38) said that rules had stayed the same and 5.8% (n = 4) said that rules had become less strict in the past 12 months. A third of SA adolescents had received talks or workshops about online safety at school in the past 12 months (35.4%, n = 67), while a higher proportion of adolescents in the UK (63.2%, n = 43) had received talks or workshops about online safety at school in the past 12 months. However, when adolescents who had received talks in the past year were compared with those who did not, findings showed no differences in risk perception, online behaviours, online risks or online victimisation and perpetration or cyberbullying experiences between the two groups.

7.7 OVERALL TRENDS

As mentioned in the methodology chapter (section 4.6.4), the interpretation of the overall trends differs for some of the variables. Differences between T1 and T2 for time spent online, online behaviours, risk perception as well as general conduct risks indicate differences in behaviours and perceptions within the past year as these variables are directly comparable and ask participants to respond to current behaviours and perceptions. On the other hand, sexting, contact risks, content risks, online victimisation, online perpetration as well as online risks overall report on different time frames (i.e. ever versus in the past 12 months). Non-significant findings for these variables thus reflect that these online experiences and behaviours remain unchanged across time.

7.7.1 Differences between T1 and T2 in each country

Results from the independent samples t-test for the directly comparable variables, namely, time spent online, online behaviours, risk perception and general conduct risks (variables where time frame between T1 and T2 were equal) showed the same findings in both countries. There was no significant change in the time spent online, online risk perception or general conduct risks engaged in by adolescents over the past 12 months. However, adolescents in both countries engaged in a wider range of online behaviours at T2 than at T1 (with a medium effect in the UK), indicating that the number of online behaviours engaged in increased with time and, thus, age of adolescents (see Table 7.37, next page). In SA, the frequency with which adolescents engaged in online activities was also higher at T2 than at T1, but no difference in frequency of engagement was found in the UK (see Table 7.38, p.

295). As mentioned, it is expected that there is a significant difference between T1 and T2 for the remaining variables in the study due to the lower time frame participants reported on at T2 (i.e. that T2 findings would be expected to be lower). However, no significant difference was found for online risks overall. Similarly, no difference was found in the range of sexting behaviours between T1 and T2 or exposure to various content risks. This suggests that online risks overall as well as sexting and content risk exposure more specifically remained unchanged in the past year.

Table 7.37: Differences between T1 and T2 in SA and the UK on the key study variables (t-test)

Variables (Max. score)	**SA**			**UK**		
	T1	**T2**	**t**	**T1**	**T2**	**t**
Time Spent Online (hours per week)	24.43 (25.63)	27.81 (29.43)	-1.32	28.66 (26.70)	29.85 (26.49)	-0.37
Online Behaviours (10)	5.04 (1.95)	**5.48** (2.01)	2.46*	4.39 (1.87)	**5.78** (2.18)	5.86*** †
Risk Perception (-30 to +30)	-4.68 (7.37)	-5.07 (7.61)	0.55	-8.62 (7.55)	-10.19 (7.27)	1.64
Online Risks (8)	8.75 (3.76)	8.60 (3.74)	0.45	7.02 (3.98)	6.48 (5.01)	0.97
- Conduct Risks: General (13)	3.19 (2.21)	3.31 (2.19)	-0.62	2.64 (2.23)	2.76 (2.49)	-0.43
- Sexting (4)	1.44 (1.31)	1.43 (1.26)	0.04	0.77 (1.08)	0.64 (1.02)	1.04
- Contact Risks (4)	**1.69** (1.33)	1.42 (1.35)	2.26*	**1.09** (1.13)	0.81 (1.01)	2.20*
- Content Risks (5)	3.87 (1.29)	3.87 (1.37)	0.03	3.28 (1.95)	2.92 (2.22)	1.47
Victimisation behaviours (8)	**3.17** (2.38)	2.17 (2.11)	4.93***	**2.51** (2.54)	1.74 (2.34)	2.66**
Perpetration behaviours (8)	**1.87** (1.73)	1.36 (1.81)	3.20**	0.87 (1.49)	0.63 (1.45)	1.40

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Contact risks were significantly lower at T2 in both countries and were thus a less consistent behaviour among adolescents. Similarly, a smaller range of online victimisation experiences occurred in the past 12 months compared to ever. In SA, adolescents also experienced online victimisation less frequently at T2, but this was not the case in the UK where there was no difference in frequency. These findings suggest that, although adolescents experienced fewer types of online victimisation in the past 12 months and occurred less frequently in the past 12 months in SA, the frequency remained fairly stable across time in the UK. Adolescents in SA also engaged in fewer types of perpetration behaviours and less frequently at T2, but again no change was found in the UK indicating that perpetration was fairly consistent across time among UK adolescents.

Table 7.38: Differences between T1 and T2 in SA and the UK and frequency analysis of key study variables (t-test)

Variables (Frequency Scores)	**SA**			**UK**		
	T1	**T2**	**t**	**T1**	**T2**	**t**
Online Behaviours (40)	12.69 (5.51)	**14.96** (6.41)	-4.16***	13.60 (9.01)	15.68 (7.24)	-0.62
Online Risks (44)	14.75 (8.12)	14.74 (7.77)	0.02	12.48 (8.73)	13.73 (8.69)	-1.05
- Sexting (16)	3.02 (3.59)	3.36 (3.61)	-1.01	1.86 (2.98)	2.05 (3.05)	-0.46
- Content Risks (20)	10.66 (5.24)	10.72 (5.15)	-0.14	10.15 (6.51)	11.34 (6.61)	-1.34
Victimisation behaviours (32)	**6.33** (6.50)	4.17 (5.44)	3.96***	6.68 (7.36)	5.22 (6.48)	1.48
Perpetration behaviours (32)	**3.22** (3.44)	2.40 (3.84)	2.45*	2.21 (4.27)	1.91 (4.15)	0.49

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

7.7.2 Differences between SA and the UK

Independent samples t-tests were conducted to determine differences between the two countries. Findings showed that there was no difference between SA and UK adolescents in time spent online and, although SA adolescents engaged in a wider range of online behaviours at T1, there was no difference at T2 suggesting an increase in online behaviours among UK adolescents across time (see Table 7.39). Despite the difference in range of online behaviours at T1, there was no difference in frequency of engagement in online behaviours between the two countries (see Table 7.40, next page).

Table 7.39: Differences between SA and the UK at T1 and T2 on key study variables (t-tests)

Variables (Max. score)	**T1**			**T2**		
	SA	**UK**	**t**	**SA**	**UK**	**t**
Time Spent Online (hours per week)	24.43 (25.63)	28.66 (26.70)	-1.67	27.81 (29.43)	29.85 (26.49)	-0.60
Online Behaviours (10)	**5.04** (1.95)	4.39 (1.87)	3.56***	5.48 (2.01)	5.78 (2.18)	-1.23
Risk Perception (-30 to +30)	**-4.68** (7.37)	-8.62 (7.55)	5.34*** †	**-5.07** (7.61)	-10.19 (7.27)	5.42*** †
Online Risks (8)	**8.75** (3.76)	7.02 (3.98)	4.74***	**8.60** (3.74)	6.48 (5.01)	4.01***
- Conduct Risks: General (13)	3.19 (2.21)	2.64 (2.23)	-0.89	3.31 (2.19)	2.76 (2.49)	-1.22
- Sexting (4)	**1.44** (1.31)	0.77 (1.08)	6.02*** †	**1.43** (1.26)	0.64 (1.02)	6.25*** †
- Contact Risks (4)	**1.69** (1.33)	1.09 (1.13)	5.23***	**1.42** (1.35)	0.81 (1.01)	4.67***
- Content Risks (5)	**3.87** (1.29)	3.28 (1.95)	3.57***	**3.87** (1.37)	2.92 (2.22)	4.24***
Victimisation behaviours (8)	**3.17** (2.38)	2.51 (2.54)	2.82**	2.17 (2.11)	1.74 (2.34)	1.73
Perpetration behaviours (8)	**1.87** (1.73)	0.87 (1.49)	6.62*** †	**1.36** (1.81)	0.63 (1.45)	4.00***

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

Furthermore, SA adolescents had higher risk perception at both time points. They also engaged in more online risks overall and more frequently than UK adolescents, which was also the case for sexting behaviours specifically. SA adolescents also engaged in more contact and content risks but there was no difference in the frequency of content risk exposure between the two countries. SA adolescents also engaged in more perpetration behaviours and, although SA adolescents had engaged in more victimisation behaviours at T1, there was no difference in victimisation behaviours between the two countries at T2. These findings are reflected in Table 7.39, while the differences in frequency of engagement in each variable is shown in Table 7.40.

Table 7.40: Differences between SA and the UK at T1 and T2 and frequency of engagement in key study variables (t-test)

Variables (Frequency Scores)	**T1**			**T2**		
	SA	**UK**	**t**	**SA**	**UK**	**t**
Online Behaviours (40)	12.69 (5.51)	13.60 (9.01)	-0.36	14.96 (6.41)	15.68 (7.24)	-0.92
Online Risks (44)	**14.75** (8.12)	12.48 (8.73)	2.62**	14.74 (7.77)	13.73 (8.69)	0.96
- Sexting (16)	**3.02** (3.59)	1.86 (2.98)	3.64***	**3.36** (3.61)	2.05 (3.05)	2.94**
- Content Risks (20)	10.66 (5.24)	10.15 (6.51)	0.82	10.72 (5.15)	11.34 (6.61)	-0.77
Victimisation behaviours (32)	6.33 (6.50)	6.68 (7.36)	-0.50	4.17 (5.44)	5.22 (6.48)	-1.27
Perpetration behaviours (32)	**3.22** (3.44)	2.21 (4.27)	2.56*	2.40 (3.84)	1.91 (4.15)	0.89

(Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; † = medium effect, †† = large effect)

7.7.3 Gender and Age Trends

As outlined in the methodology chapter in section 4.6.4, 2x2x2 Factorial ANOVA for SA (age x gender x time) and 3x2x2 Factorial ANOVA for the UK (age x gender x time)[36] were conducted, however, no interaction effects with the time variable were found. Gender and age was analysed for each country separately and is reported in the following sections. Initially any T1 effects in this subset of participants is reported, followed by any T2 effects.

[36] Mentioned in section 4.6.4 in the methodology section, SA consisted of 2 age categories at follow-up while the UK consisted of 3 age categories, which accounts for the different levels of the age variable in the two countries. The longitudinal study participants included a wider age range in the UK than in SA.

7.7.3.1 South Africa

No interaction or main effects were found for time spent online but online behaviours varied. At T1, a 2x2 Factorial ANOVA yielded a small interaction effect for age and gender and the range of online behaviours engaged in, $F(1, 422) = 11.01$, $p = .001$, $\eta 2 = .03$. Results showed that, although online behaviours were similar between males (M = 4.95, SE = .21) and females (M = 4.97, SE = .19) aged 14-15 years, males engaged in a wider range of online behaviours at 16-17 years (M = 5.93, SE = .21) than females (M = 4.66, SE = .18) at this age group. A main effect for gender also showed that males engaged in a wider range of online behaviours in general (M = 5.44, SE = .15) compared to females (M = 4.82, SE = .13) at T1, $F(1, 422) = 10.05$, $p = .002$, $\eta 2 = .02$. At T2, the assumption of homogeneity of variance was violated for a Factorial ANOVA analysis, thus separate independent samples t-tests for gender and age were conducted. Findings showed that males also engaged in a wider range of online behaviours (M = 5.57, SD = 2.23, SE = .16) than females (M = 5.00, SD = 1.80, SE = .11) at T2, $t(342) = 2.84$, $p = .005$, r = .15. Males also did so more frequently (M = 14.95, SD = 7.42, SE = .57) than females (M = 13.14, SD = 4.62, SE = .29), $t(260) = 2.84$, $p = .005$, r = .17. Age was non-significant for the range of online behaviours engaged in, but the frequency of online behaviours varied. Older adolescents aged 17-18 years at T2 engaged in online behaviours more frequently (M = 15.44, SD = 7.41, SE = .81) than younger adolescents aged 15-16 years at T2 (M = 13.45, SD = 5.55, SE = .30), $t(107) = -2.31$, $p = .023$, r = .22.

A 2x2 Factorial ANOVA for risk perception yielded an interaction effect at T1. Males had significantly lower risk perception at both 14-15 years (M = -7.54, SE = .78) and 16-17 years (M = -7.85, SE = .77) than females at both age groups respectively (M = -1.87, SE = .70; M = -5.81, SE = .65), $F(1, 384) = 6.21$, $p = .013$, $\eta 2 = .02$, although this also produced a small effect. Risk perception was significantly lower among 16-17 year old females than younger females. Main effects were also found for age and gender separately, further indicating lower risk perception among males (M = -7.69, SE = .55) than females (M = -3.84, SE = .48), $F(1, 384) = 28.05$, $p < .001$, $\eta 2 = .07$. Those in late adolescence also had lower risk perception (M = -6.83, SE = .50) than those in middle adolescence in the sample (M = -4.71, SE = .52), $F(1, 384) = 8.51$, $p = .004$, $\eta 2 = .02$. At T2, main effects were also found for both gender and age. Again, males had significantly lower risk perception (M = -7.53, SE = .65) than females (M = -4.42, SE = .53) at T2, $F(1, 333) = 13.83$, $p < .001$, $\eta 2 = .04$. Risk perception was also lower among the oldest age group aged 17-18 years (M = -6.83, SE = .52) compared to those in

middle adolescence aged 15-16 year olds (M = -5.12, SE = .65) at T2, F(1, 333) = 4.15, *p* = .042, η2 = .01.

A small interaction effect at T1 found that online risk behaviours increased among males from 14-15 (M = 7.99, SE = .41) to 16-17 years (M = 9.13, SE = .41), but decreased among females aged 14-15 (M = 9.14, SE = .37) to 16-17 years (M = 8.29, SE = .35), F(1, 422) = 6.70, *p* = .010, η2 = .02. A main effect was also found for gender at T2, indicating that males engaged in slightly more online risks (M = 8.98, SE = .33) than females (M = 8.11, SE = .27) among this subset of SA participants, F(1, 362) = 4.21, *p* = .041, η2 = .01.

When types of online risks were examined separately there was no difference in gender and age and engagement in general conduct risks at T1. At T2, a main effect for gender indicated that males engaged in a slightly higher mean of general conduct related risks (M = 2.04, SE = .12) than females (M = 1.73, SE = .10, F(1, 362) = 4.04, *p* = .045, η2 = .01. Sexting was also non-significant at T1 for either gender or age and, while there was no difference in the range of sexting behaviours for gender and age at T2, age was significant for the frequency of sexting behaviours. Those aged 17-18 years engaged in sexting behaviours more frequently (M = 3.95, SD = 4.15, SE = .47) than younger adolescents aged 15-16 years (M = 2.77, SD = 3.32, SE = .18, t(98) = -2.33, *p* = .022, r = .23.

Contact risks were non-significant at T1, but an interaction effect at T2 showed that, although contact risks were fairly similar among males and females at middle adolescence (Males: M = 1.58, SE = .14; Females: M = 1.64, SE = .13), males engaged in more contact risks at late adolescence (M = 1.85, SE = .14) than females (M = 1.37, SE = .12), F(1, 362) = 4.30, *p* = .039, η2 = .01. No gender or age differences were found for content risks at T1 or T2.

Independent samples t-tests were conducted for gender and age for online victimisation at both T1 and T2 due to the violation in the assumption of homogeneity of variance for a Factorial ANOVA. At T1, the range of victimisation experiences was higher among females (M = 3.18, SD = 2.37, SE = .14) than males (M = 2.25, SD = 2.25, SE = .16), t(485) = -4.35,

$p < .001$, r = .19. Females also experienced victimisation more frequently (M = 6.51, SD = 6.55, SE = .40) than males (M = 4.59, SD = 5.75, SE = .42), t(431) = -3.31, $p = .001$, r = .16. Age was non-significant for range of victimisation behaviours at T1, but older adolescents experienced victimisation more frequently (M = 6.89, SD = 6.77, SE = .63) than younger adolescents (M = 5.25, SD = 6.06, SE = .33), t(456) = -2.45, $p = .015$, r = .11. Females also experienced a wider range of victimisation behaviours (M = 2.92, SD = 2.35, SE = .15) than males (M = 2.10, SD = 2.07, SE = .15) at T2, t(418) = -3.85, $p < .001$, r = .19. They also did so more frequently (M = 5.95, SD = 6.46, SE = .42) than males (M = 3.95, SD = 5.02, SE = .38), t(410) = -3.54, $p < .001$, r = .17. Younger adolescents aged 15-16 years experienced a wider range of victimisation behaviours (M = 2.67, SD = 2.27, SE = .12) than older adolescents (M = 2.09, SD = 2.22, SE = .24), t(439) = 2.11, $p = .036$, r = .10. Perpetration of these online victimisation behaviours was non-significant for gender and age at both T1 and T2 in this sample of adolescents. These findings are summarised in Table 7.41.

Table 7.41: Overall Gender and Age Trends of SA Adolescents at T1 and T2 (Summary Table)

	T1			T2		
Variable	**Gender**	**Age**	**Gender x Age**	**Gender**	**Age**	**Gender x Age**
Time Spent Online	-	-	-	-	-	-
Online Behaviours	M > F	-	Yes (M > L)	M > F	L > Mid	-
Risk Perception	F > M	Mid > L	Yes (F > Mid and L)	F > M	Mid > L	-
Online Risks	-	-	Yes (F > Mid, M > L)	M > F	-	-
Conduct Risks	-	-	-	M > F	-	-
- Sexting	-	-	-	-	L more frequently than Mid	-
Contact Risks	-	-	-	-	-	Yes (M > L)
Content Risks	-	-	-	-	-	-
Victimisation behaviours	F > M	L more frequently than Mid	-	F > M	Mid > L	-
Perpetration behaviours	-	-	-	-	-	-

(Note: For gender, M = Male and F = Female. For age, Mid refers to those aged 14-15 years old at T1 and 15-16 years at T2 and represents middle adolescence, L refers to those aged 16 and older at T1 and 17-18 years at T2 and represents late adolescence).

7.7.3.2 United Kingdom

Overall findings for 3x2 Factorial ANOVAs for age and gender showed that there were no significant differences at T2. In fact, findings at T2 only showed that time spent online peaked at middle age at follow-up. More specifically, those in middle adolescence (15-16 years) spent significantly more time online per week (M = 35.19, SD = 31.12, SE = 3.89) compared to both younger (M = 22.43, SD = 17.12, SE = 3.57) and older (M = 22.43, SD = 14.58, SE = 3.04) adolescents. Due to the violation in the assumption of homogeneity of variance, one-way ANOVA using the more stringent Welch's test was reported, $F(2, 59) = 3.93$, $p = .025$, $\eta 2 = .06$. The Dunnett T3 post-hoc test showed that the difference between middle and both early and late adolescence was significant ($p = .049$ and $p = .034$ respectively). No gender or age differences emerged at T1.

Since no other gender or age trends were found at T2, the following findings pertain to trends at T1 in order to examine shifts in trends. Findings showed that males engaged in a wider range of online behaviours (M = 4.87, SE = .24) than females (M = 4.07, SE = .18), $F(1, 170) = 7.20$, $p = .008$, $\eta 2 = .04$. Males also had significantly lower risk perception (M = -11.33, SE = .98) than females (M = -7.06, SE = .76) at T1, $F(1, 158) = 11.84$, $p = .001$, $\eta 2 = .07$.

Although the range of online risks engaged in was non-significant for gender or age, frequency of online risk behaviours increased with age at T1 (13-14 years: M = 9.14, SE = 1.26; 15-16 years: M = 12.74, SE = 1.15; 17-18 years: M = 13.99, SE = 1.30), $F(1, 142) = 3.95$, $p = .021$, $\eta 2 = .05$. Bonferroni post-hoc analyses indicated that the difference between early and late adolescence was significant ($p = .009$). Analyses of the individual types of online risks showed no gender or age trends for general conduct risks as well as contact risks at either time point. Frequency of sexting behaviours was higher among those at middle (M = 1.97, SD = 1.70, SE = .25) and late (M = 2.39, SD = 3.32, SE = .47) adolescence at T1 compared to those at early adolescence (M = 0.91, SD = 1.93, SE = .29), $F(2, 152) = 3.64$, $p = .029$, $\eta 2 = .05$. Dunnett T3 post hoc analysis revealed that the difference between early and late adolescence was significant ($p = .029$). Content risks showed no gender differences but age was significant at T1. Due to the violation in the assumption of homogeneity of variance for this variable, a one-way ANOVA is reported using the more stringent Welch's statistic. The range of content risk exposure showed that those in late adolescence engaged in higher

content risks (M = 3.27, SD = 1.96, SE = .15) compared to those in early (M = 3.34, SD = 1.67, SE = .24) and middle (M = 2.84, SD = 2.12, SE = .25) adolescence, $F(2, 111) = 3.51$, $p = .033$, $\eta 2 = .04$. Dunnett T3 post-hoc analysis indicated that the difference between middle and late adolescence was significant ($p = .027$). The frequency with which adolescents were exposed to content risks also varied with age at T1, $F(2, 98) = 4.26$, $p = .017$, $\eta 2 = .05$. Those in middle (M = 10.39, SD = 7.13, SE = .94) and late (M = 11.47, SD = 6.98, SE = .85) were exposed to content risks more frequently than those in early adolescence (M = 8.00, SD = 5.69, SE = .86). Dunnett T3 post-hoc analysis showed that the difference between early and late adolescence was significant ($p = .028$). Online victimisation and perpetration behaviours yielded no gender or age effects at T1 or T2 both for range of behaviours and frequency of behaviours. These findings are summarised in Table 7.42.

Table 7.42: Overall Gender and Age Trends of UK Adolescents at T1 and T2 (Summary Table)

	T1			T2		
Variable	**Gender**	**Age**	**Gender x Age**	**Gender**	**Age**	**Gender x Age**
Time Spent Online	-	-	-	-	E < Mid > L	-
Online Behaviours	M > F	-	-	-	-	-
Risk Perception	F > M	-	-	-	-	-
Online Risks	-	L more frequently than E	-	-	-	-
Conduct Risks	-	-	-	-	-	-
- Sexting	-	L more frequently than E	-	-	-	-
Contact Risks	-	-	-	-	-	-
Content Risks	-	L > Mid; L more frequently than E	-	-	-	-
Victimisation behaviours	-	-	-	-	-	-
Perpetration behaviours	-	-	-	-	-	-

(Note: For gender, M = Male and F = Female. For age, Mid refers to those aged 14-15 years old at T1 and 15-16 years at T2 and represents middle adolescence, L refers to those aged 16 and older at T1 and 17-18 years at T2 and represents late adolescence).

The chapter that follows discusses the cross-sectional and longitudinal study findings, highlighting the key results in relation to the literature.

CHAPTER 8

CROSS-SECTIONAL AND LONGITUDINAL STUDY DISCUSSION

8.1 ACCESS TO TECHNOLOGY, TIME SPENT ONLINE AND ONLINE BEHAVIOURS OF ADOLESCENTS

Similar to adolescents in other countries (e.g. Livingstone & Bober, 2006), adolescents in SA have relatively high access to ICTs. They are able to access the internet on a range of devices, with the majority accessing the internet from their mobile phones. It is argued that the rapid uptake of electronic media and the high internet access via mobile phones (Burton & Mutongwizo, 2009; Payne, 2012), considered the key means in which the internet has been adopted across Africa (Calandro, Stork, & Gillwald, 2012), means that the risks adolescents in SA encounter are not unlike those of adolescents in more developed countries. Adolescents in the UK also accessed the internet most frequenctly from their mobile phones in the cross-sectional study, indicating that mobile phones are key devices in adolescent online behaviours. At the follow-up study, UK adolescents reportedly used computers more often to access the internet which was unlike the SA adolescents who continued to primarily make use of their mobile phones for internet access.

There was a general increase in access to devices among adolescents between the baseline and follow-up studies, suggesting that access to ICTs increased with age. This may be due to parents viewing access to ICTs as more important and beneficial as adolescents get older and are, thus, more likely to purchase them as adolescents get older. Adolescents might also put more pressure on parents to purchase these devices as they get older. Most computers used by adolescents were located in private areas of the home such as a study or bedroom rather than in a shared space. Accessing the internet from more private locations as well as more private devices such as mobile phones (and tablets) limits the potential for parental monitoring of internet activity. Using more private devices in private areas of the home means that adolescents have more control over their own ICT use and more privacy in communicating with peers. This facilitates their emancipation from parents (Ling, 2005). Apart from the impact on parental mediation and privacy preservation, the location of the home computer has been associated with cyberbullying in previous studies, with computers located in more private areas of the home linked to higher risk of victimisation (Sengupta & Chaudhuri, 2011,

as cited in Attrill, 2015). This is not surprising since more private access to devices with fewer chances of monitoring enables high engagement in a range of online behaviours and activities, thereby increasing the potential for online risk encounters.

In the cross-sectional study, adolescents in SA spent roughly 3 hours online per day, consistent with research conducted in the US (Khurana, Bleakley, Jordan, & Romer, 2014). This suggests that adolescents in SA are generally on par with their counterparts in more developed countries with regard to internet access and use. Adolescents in the UK spent an average of one hour longer online per day (4 hours). Not surprisingly then, they also engaged in a wider range of online activities and did so more frequently than SA adolescents in the cross-sectional study. The overall trends in the longitudinal study with the subset of participants contradicted this finding and showed that adolescents in both countries spent similar lengths of time online in the past year. However, this merely serves as further evidence for the high access and use of the internet in the SA context which is similar to that of more developed countries. The follow-up study also showed that adolescents in both countries engaged in more online behaviours and more frequently over the past year, suggesting that there was an increase with age. As previously mentioned, higher engagement in online behaviours may be as a result of higher access to devices at follow-up. Therefore, despite UK adolescents spending more time online and engaging in more online behaviours in the cross-sectional study, there was no difference at follow-up which indicated similar access, use, and time spent online between adolescents in the two countries.

The most popular activities by adolescents were instant messaging, social networking as well as the use of programs that involve either uploading or commenting on pictures (e.g. Instagram or Snapchat)[37] or videos (e.g. YouTube). There was also a significant increase in the use of programs to post or comment on pictures, especially among females in both countries over the period of one year, as well as an increase in social networking in the UK sample. This supports the view that adolescents use the internet primarily as a social and entertainment tool (Mesch & Talmud, 2010). Using programs for communication purposes, which includes instant messaging, social networking, and sharing of images and videos,

[37] Since the start of the current study, both Instagram and Snapchat have been updated to include video clips in addition to images. The current study examined programs involving uploading or commenting on images and videos separately.

highlights the importance of social ties in the context of adolescent relationships and staying connected in online social circles. Age trends in the cross-sectional study also indicated that social networking and programs used to post or comment on pictures increased between early and middle adolescence. Although the other online activities remained fairly consistent across age groups and across time, the UK findings indicated that some activities decreased in use. For example, the use of instant messaging, programs involving a webcam, and online gaming decreased steadily from early to late adolescence in the cross-sectional study and across time in the longitudinal study. Although differences in online activities that existed between the two countries at baseline were largely reduced at follow-up, more UK adolescents used programs to upload or share videos, programs that involve a webcam, and talked to people online whom they had never met, while more SA adolescents continued to use instant messaging programs. This is an indication of changes in trends of certain online activities among adolescents across time in different social contexts.

Although online activities are often argued to become more complex with age and the longitudinal study indicated changes in trends over time, there was no difference in time spent online or the range of online activities engaged in when examining age of adolescents. In terms of gender, males engaged in more online activities and more frequently than females (in the cross-sectional study in the UK and in the longitudinal study in SA), with clear differences in types of online activities. Females in both countries were more likely to use programs to upload or comment on pictures (e.g. Instagram and Snapchat), while males were more likely to use programs to upload or comment on videos (e.g. YouTube). Online gaming was also more popular among males. These gender differences are consistent with previous research (e.g. Rideout, Foehr, & Roberts, 2010). For example, in Sweden, boys aged 9-16 years played more online games and watched more video clips online, while females were more involved in social networks, chatting and blogging, as well as programs for uploading images (Beckman, Hagquist, & Hellström, 2013). The longitudinal study showed that there was a significant increase in the use of programs to upload or comment on pictures among both males and females in SA, further reflecting the rising popularity in this online activity. In the past 12 months, males in both countries reported higher online gaming and use of chat rooms than females. Since there was no difference in access to technology or time spent online between males and females, their different preferences in online activities may lead them to encounter different types of online risks which is discussed in a later section.

8.2 CYBERAGGRESSION AND CYBERBULLYING AMONG ADOLESCENTS

Studies have indicated that communication-focused activities lead to greater risks of cyberbullying (Mesch & Talmud, 2010; Twyman, Saylor, Taylor, & Comeaux, 2010), perhaps due to allowing more unknown individuals into one's online space, a behaviour common among adolescents (Aboujaoude et al., 2015). Similarly, higher ICT use in general has also been linked to a greater likelihood of adolescents being bothered or upset by something on the internet (McCarty, Prawitz, Derscheid, & Montgomery, 2011; Smahel et al., 2012). Others have also shown that adolescents who spend more time online encounter more online risks and cyberbullying (Keith & Martin, 2005; Lindsay & Krysik, 2012). Thus, more time online and higher engagement in online activities provides more opportunities for online risk experiences. This was reflected in the cross-sectional findings where UK adolescents spent more time online, engaged in more online activities, had higher access to computers and tablets, and also reported higher cyberbullying rates (43.0%) compared to SA adolescents (34.3%). In the follow-up, analyses indicated that those who had been cyberbullied in SA engaged in more online behaviours than those who had not been cyberbullied but this was not the case in the UK sample. Despite this variation, a relationship was found between time spent online and online activities, both of which were positively correlated with online risks, online victimisation and online perpetration in the current sample. Thus, more generally, this indicates an association between online behaviours and time spent online and online victimisation.

Although UK adolescents were more likely than SA adolescents to report ever having had a cyberbullying experience, one in four adolescents in both countries reported being cyberbullied in the past year (SA: 25.1%, UK: 26.0%). The follow-up showed that there was no difference in the range of online activities engaged in nor time spent online between adolescents in the two countries, thus their similar cyberbullying prevalence rates in the past year might be an indication that access to ICTs, online behaviours and time spent online play a role in the likelihood of experiencing cyberbullying. However, irrespective of similarities and differences in online behaviours and time spent online between adolescents in the cross-sectional and longitudinal parts of the study, SA adolescents reported higher online perpetration behaviours and more overall online risk behaviours than UK adolescents.

The cyberbullying rates established in the current study at both time frames were at the high end of rates presented in some other studies both internationally (e.g. Campbell, Butler, & Kift, 2008; Hasebrink, Livingstone, Haddon, & Ólafsson, 2009) as well as previous research in both SA (e.g. Burton & Leoschut, 2012; Pillay, 2012) and the UK (e.g. Livingstone & Bober, 2006). For example, the rates are higher than the 2006-2009 findings for the EU Kids Online research, which found a 15-20% prevalence rate across Europe for having ever been cyberbullied, harassed or stalked (Hasebrink, Livingstone & Haddon, 2009). Similarly, a subsequent EU Kids Online report showed that 19% of 9-16 year olds experienced any bullying (i.e. both online and offline) in the past year, of which 7% was cyberbullying (Livingstone et al., 2011) - clearly significantly lower than the prevalence rates found in the current study. The differences between these two EU Kids Online reports exist due to the different time frames examined (i.e. ever and the past year), which is a major factor in the variations in cyberbullying prevalence rates across studies in general. Reviews of cyberbullying research indicate that prevalence rates can vary between 4% and 46% for victimisation and 11% to 33% for perpetration (Schrock & Boyd, 2008; Tokunaga, 2010; Livingston, Haddon & Görzig, 2012). Apart from studies utlising different time frames to examine cyberbullying, these variations in prevalence rates are also due to differences in the samples studied, the measures employed, and the notable differences in the operationalisation of cyberbullying. All of these factors are a challenge when attempting comparisons. The findings from the current study are, however, more or less within the range of 20%-40% as presented in the review by Tokunaga (2010) and the 35%-40% prevalence rate found among 12-15 year olds in England (Tarapdar, Kellett, & People, 2013).

Apart from the experiences labelled as cyberbullying by adolescents, the majority reported ever having at least one online victimisation experience (SA: 79.5%; UK: 68.8%). In the past year, nearly two-thirds of SA adolescents (73.6%) and half of UK adolescents (50.8%) had at least one online victimisation experience without it necessarily being labelled as cyberbullying. These may be incidents that were perceived as being less serious or where victims were more resilient to its effects and were able to succesfully deal with the encounters. Adolescents may also be reluctant to label their experiences as cyberbullying. Research has shown that young people often perceive their online victimisation experiences as ‘drama’ rather than an act of cyberbullying in order to distance themselves from the term used by adults and mainstream media (Marwick & Boyd, 2014). The findings may also

reflect a proportion of adolescents who are simply unaware of what behaviours constitute cyberbullying and thus do not label it as such, particularly if educational and media campaigns are less prevalent. Similar to what was argued in research by Ortega et al. (2012) who compared three European countries, the current study findings may indicate that UK adolescents are more aware of cyberbullying compared to SA adolescents due to more initiatives and campaigns related to the issue and which occur over a longer period of time, thereby impacting on adolescents' understanding of the phenomenon. The differences in policies and campaigns between the two countries which may be attributable to this are discussed further in the General Discussion (Chapter 9) as it ties in with findings from the Focus Group results.

Although adolescents in SA were more likely to have had at least one online victimisation experience, there was no difference in the range or frequency of online victimisation experiences between adolescents in SA and the UK. Also noteworthy, is the high proportion of adolescents in both countries who had experienced online victimisation multiple times, illustrating the repetititive nature of some of these encounters. The most common victimisation experiences among adolescents included (i) name-calling, (ii) impersonation, (iii) posting of embarrassing pictures, (iv) spreading of rumours or gossip, and (v) online threats. In the UK, posting of embarrassing pictures is particularly prevalent as both an online victimisation and perpetration behaviour. Online victimisation experiences were reportedly most likely to occur on social networking sites, text messages on mobile phones, instant messaging, as well as in chat rooms. Previous research has highlighted social networking sites as being the most common location for cyberbullying experiences (Jones, Mitchell, & Finkelhor, 2013; LeBlanc, 2012).

While there was no gender difference in experiences of online victimisation in the UK, females in SA reported a wider range of victimisation experiences than males in both the cross-sectional and longitudinal studies. A higher frequency of victimisation was also reported among SA females and they were significantly more likely to report having been cyberbullied than males in the cross-sectional study and at T1 in the longitudinal study. However, no gender differences emerged in SA in cyberbullying experiences that occurred in the past 12 months and no gender differences emerged at any time point in the UK. These

gender findings reflect the conflicting results in much of the current literature in the area (e.g. Ortega et al., 2009; Barlett & Coyne, 2014; Huang & Chou, 2010), and prevents any firm conclusions being drawn in relation to gender. It does, however, indicate that online victimisation is very high and that prevalence rates for ever having had this experience was higher among females in SA.

Online victimisation increased at each stage of adolescence in SA, and frequency of victimisation increased between early and middle adolescence in the cross-sectional study. Although this related to online victimisation rather that behaviours labelled as cyberbullying by adolescents, it is in contrast to findings suggesting that younger adolescents are more vulnerable to negative online influences (Espinoza & Juvonen, 2011) or that cyberbullying tends to peak at early adolescence and decrease with age (Cappadocia, Craig, & Pepler, 2013). It is, however, in line with research indicating that older adolescents were more at risk of victimisation (Tarapdar & Kellett, 2011; Tarapdar et al., 2013). In terms of labelling experiences as cyberbullying, there were no age differences in cyberbullying experiences. Therefore, the current study adds to the majority of current research which found no relationship between age and cyberbullying (e.g. Juvonen & Gross, 2008; Smith et al., 2008).

One of the reasons for online victimisation increasing with age in SA may be that victimisation (and perpetration) relies on individuals becoming technologically sophisticated enough to be involved in online media (Tarapdar & Kellett, 2011). Thus, as adolescents get older and are exposed to more online programs and activities, their engagement with online media becomes more complex and interactive, thereby making them more vulnerable. Although the cross-sectional study asked adolescents to report on whether they had ever had various victimisation experiences and it is, thus, expected that experiences would increase with age as a result of the time frame, an increase in specific online activities may make some adolescents more vulnerable. The study found that social networking and the use of programs such as Instagram and Snapchat increased with age. Therefore, it is possible that an increase in communication-focused activities may expose older adolescents to more risk of online victimisation, rather than engagement in more online activities or spending more time online generally. In contrast, the UK findings indicated no age differences in online victimisation but also showed an increase in the use of the same programs over time (i.e. social networking

and programs to upload or comment on images). Thus, although there is some support for more complex online interactions at older age groups increasing the potential for risk exposure, firm conclusions cannot be drawn due to the UK findings, and more research is warranted.

Adolescents indicated that cyberbullying was most likely to be related to appearance, the nature of online expression (i.e. their posts or images), sexuality and sexual orientation (actual or perceived), as well as other markers of identity (e.g. race or religion). Relating to some of these categories, literature indicated that those who are overweight or have a small build, those with learning disabilities, or those who are more sensitive are at higher risk of being targeted in traditional forms of bullying, and all are also risk factors for cyberbullying (Willard, 2005, as cited in Bayar & Uçanok, 2012). Research also shows that sexual minorities are generally at higher risk of cyberbullying (Aboujaoude, Savage, Starcevic, & Salame, 2015). This suggests that sexuality and other aspects of identity (and diversity more broadly) are important topics for discussion with adolescents when addressing these issues.

Victims of cyberbullying largely knew who their perpetrator was. This suggests that perpetrators are often friends, school acquaintances or other known individuals, which is consistent with previous research (Burton & Leoschut, 2012; Jones et al., 2013; Udris, 2015). Of those who experienced cyberbullying in the past 12 months, however, just under half of UK adolescents reported that they knew the identity of the perpetrator (48.5% compared to 68.5% in SA). Based on these findings, anonymity was less of a factor in relation to online victimisation in the current study but it did still play a role in some online victimisation that was experienced, particularly in the UK. The role of anonymity in online victimisation has been explored in recent research, indicating that anonymity is a risk factor for cyberbullying (Barlett et al., 2014) and that anonymous users exhibited more aggressive behaviour (Nakano et al., 2016).

Cyberbullying was most likely to be disclosed to friends, which was established in previous research (Burton & Leoschut, 2012; Livingstone, Haddon, & Görzig, 2012; Udris, 2015). Mesch and Talmud (2010) argue that peer relationships during adolescence are central, with

peers being the main confidants and individuals providing advice. This is an important finding in relation to intervention and prevention strategies, highlighting the importance of peer-led interventions and need to build on peer-support. An encouraging finding in the study is that one in five cyberbullying victims in both the cross-sectional (SA: 23.4%; UK: 22.1%) and longitudinal studies (SA: 18.8%; UK: 21.4%) informed their parents about cyberbullying incidents, a reflection of positive parent-child bonds for some. This is similar to other findings in the UK where 22% of 12-15 year olds told a parent about a cyberbullying incident (Tarapdar & Kellett, 2011). Parents are an important channel through which adolescents can be given the tools to navigate online environments safely and to manage the risks they encounter. School personnel emerged as least likely to be informed about incidents, a finding in line with previous research in both SA and the UK (Pillay, 2012; Tarapdar & Kellett, 2011). However, in a study examining trends over time, more adolescents were found to have told school staff about a cyberbullying incident in 2010 compared to 2005 or 2000 (Jones et al., 2013), suggesting that perhaps the issue is becoming more prominent and more openly discussed in the school context. Despite this, the lower likelihood of adolescents reporting cyberbullying incidents to parents or teachers supports the notion that adults are largely removed from children's online experiences. Of high concern too is that one in ten adolescents in the cross-sectional study told nobody about their cyberbullying experience and, at follow-up, SA adolescents were three times more likely not to have told anyone about a cyberbullying incident (17.2%) compared to UK adolescents (5.4%). These findings reflect the potential for cyberbullying to continue unnoticed by adults for long periods of time. It highlights the need to discuss cyberbullying with adolescents, to ease communication in order to increase the likelihood of reporting, as well as to provide information and support, since prolonged exposure to victimisation without intervention can lead to more serious psychological, emotional and behavioural effects (Aluede, Adeleke, Omoike, & Afen-Akpaida, 2008; Mesch & Talmud, 2010).

The severity of some online victimisation experiences are underscored by the emotional reactions reported in the cross-sectional study. Approximately two in five adolescents reported feeling hurt or sad (SA: 37%; UK: 41.3%), a third felt scared or worried (SA: 33.6%; UK: 31.9%), and a quarter (SA: 22.7%; UK: 27.7%) reported not wanting to go to school on some days because of something someone said or did to them online. The open-ended questions, relating to cyberbullying incidents specifically, further highlighted the

potentially severe consequences including anxiety, depression, suicidal thoughts and self-harm as well as low self-esteem. This has also been concluded from previous research on both bullying and cyberbullying (e.g. Bauman, Toomey & Walker, 2013; Dempsey, Sulkowski, Nichols, & Storch, 2009; Kim & Leventhal, 2008; Kochenderfer-Ladd & Skinner, 2002; Mitchell et al., 2016). For example, there is evidence to suggest that cyberbullying-related suicide is most commonly reported between 13-18 years and is higher among females (LeBlanc, 2012). Others also noted that online peer victimisation was related to suicidal ideation and suicide attempts among both children and adolescents (Van Geel, Vedder & Tanilon, 2014). Findings also showed that one in ten adolescents reported emotional reactions towards online victimisation on more than one occasion in the past year, with a higher proportion in the UK. Emotional experiences linked to online victimisation were also generally stable across time. These findings underscore the consistent and prolonged exposure to negative effects related to online victimisation, with a serious potential for both short-term and long-term effects. The higher proportion of UK adolescents who reported not wanting to go to school on some days in the past year due to an online experience also highlights the potential for negative educational outcomes, school social climate and school connectedness (Bauman, 2007; Patchin & Hinduja, 2006).

Apart from victimisation experiences, perpetration was also high. Adolescents in SA were more likely to admit to having perpetrated one of the eight negative online behaviours explored in the study, both ever (SA: 72.5%; UK: 47.5%) and in the past 12 months (SA: 55.7%; UK: 24.6%). However, overall trends showed that the range of perpetration behaviours engaged in by adolescents was more consistent across time in the UK than in SA. The most common perpetration behaviours were very similar to the victimisation behaviours, and included (i) name-calling, (ii) impersonation, (iii) posting embarrassing photos, (iv) spreading rumours or gossip, and (v) forwarding private messages to a wider audience. Very few individuals who admitted perpetration labelled their behaviour as an act of cyberbullying, indicating that they are less likely to view their own actions in this light or are less aware of the potential consequences of their actions. The victim-perpetrator link established in other studies (e.g. Burton & Mutongwizo, 2009; Patchin & Hinduja, 2006; Udris, 2015) also clearly emerged in the current study, with most adolescents admitting to being both an online victim and an online perpetrator (SA: 63.5%; UK: 45%). The two variables were also highly positively correlated. Thus, the current study supports the notion that experiences of online

victimisation may result in higher likelihood of online perpetration (Jang, Song, & Kim, 2014; Patchin & Hinduja, 2010b) and vice versa (Livingstone et al., 2012). In sum, the findings showed that, although SA adolescents were more likely to have had at least one online victimisation experience, there was no difference in the range or the frequency of online victimisation experienced between adolescents in the two countries. In addition, although adolescents in the UK were more likely to perceive their online victimisation experience as cyberbullying compared to those in SA, the perceived cyberbullying rate was similar in both countries at follow-up. This suggests that online victimisation and cyberbullying experiences were similar in SA and the UK, but that SA adolescents were more likely to admit perpetration.

Apart from victimisation and perpetration, cyberbullying was reportedly witnessed 'often' or 'very often' by one in ten adolescents while online. Adolescents in the UK were more likely to know someone such as a friend or sibling who has been a victim of cyberbullying (71.6%) compared to SA adolescents (38.7%). This difference may, again, reflect the lower educational and media campaigns in the country which impact on adolescents' perceptions and labelling of cyberbullying incidents. This also highlights the importance of working with bystanders of cyberbullying incidents who can play a key role in interventions and, again, indicates the importance of strengthening peer-networks. In sum, these findings show that adolescents are exposed to high levels of online aggression in various ways as victims, perpetrators and witnesses and often a combination of these roles in their use of ICTs. Not only does this reflect the complexity of cyberbullying as a phenomenon, but it also highlights the need for intervention and prevention strategies targeting these various roles.

8.3 TRADITIONAL BULLYING AND ITS LINK TO CYBERBULLYING

Two in five adolescents (SA: 42.5%; UK: 39.4%) experienced traditional bullying in the past year. This is higher than the 21% of 18-25 year old undergraduate students who reported experiencing traditional bullying in the past year (Wensley & Campbell, 2012), indicating that adolescence is a particularly vulnerable time for bullying experiences. It is also considerably higher than the 10.9% of high school students involved in traditional bullying in Taiwan (Chen & Cheng, 2013) or the 23.5% of 8-18 year olds who reported traditional bullying experiences in Canada (Mishna et al., 2015). In contrast and more in line with

current study findings, a UK study found that nearly half of adolescents aged 13-16 years had experienced bullying (Jackson, Browne, & Joseph, 2016). Considering the traditional bullying rate in each country in the past year (SA: 42.5%; UK: 39.4%), a considerably higher proportion of SA adolescents (72.4%) experienced at least one type of face-to-face victimisation experience in the past year without labelling it as bullying. In the UK, on the other hand, only slightly more adolescents reported face-to-face victimisation experiences in the past year (43.2%) that were not labelled as bullying. This may again point to differences in educational and media campaigns and the extent to which these issues are discussed between the two countries, which impact on the way these encounters are perceived by adolescents.

In terms of specific traditional bullying acts, just over half of adolescents had been called a hurtful name or been made fun of or teased (SA: 52.0%; UK: 54.9%), and half had been left out of things, ignored or excluded from a group on purpose (SA: 48.5%; UK: 51.4%) in the past year. Of concern is that just over a quarter of adolescents had been physically assaulted in the past year (SA: 27.4%; UK: 27.8%). In terms of perpetration, 57.5% of adolescents in SA and 19.5% in the UK admitted perpetrating any of these behaviours at least once in the past year. However, once again, a negligible proportion of adolescents labelled their perpetration behaviour as an act of bullying, indicating the low likelihood that adolescents would admit to bullying and the potential lack of understanding of the serious effects of their behaviours on others. As with online behaviours, face-to-face victimisation and perpetration behaviours were linked. This is in line with previous research on both traditional bullying (Chapell, Hasselman, Kitchin, Lomon, & others, 2006) and cyberbullying (Bauman & Newman, 2013; Kowalski & Limber, 2007). These findings show that traditional bullying is a major and ongoing problem in both countries that warrants serious attention. This is especially the case in SA where a higher range and frequency of behaviours were reported for offline victimisation and perpetration compared to the UK.

In terms of gender differences and face-to-face victimisation, females in both countries were more likely to have been excluded socially. Males in SA were twice as likely as females to have experienced physical aggression in the past year and also twice as likely to have threatened to hurt someone in the past year. These findings follow the established research on

traditional bullying to some extent, which showed that direct physical forms of aggression are more associated with males and more indirect relational forms of aggression are associated with females (Olweus, 1993, 2003). However, this was found to a lesser extent in the UK, where no significant gender differences were found in relation to physical aggression. Some previous research has also found no gender differences in traditional bullying (Perren, Dooley, Shaw, & Cross, 2010; Solberg, Olweus, & Endresen, 2007). The differences between the genders in the two countries may further reflect different cultural and/or socialisation processes, with SA being more consistent with a more conservative, patriarchal society whereas the UK is more egalitarian. The different socialisation processes between males and females are perhaps most evident in the reported emotional reactions due to victimisation, which was significantly higher among females in both countries. This has previously been found for both traditional bullying and cyberbullying (Ortega, Elipe, Mora-Merchán, Calmaestra, & Vega, 2009). It may be the case that, due to established gender norms, females are more likely to admit their emotions and vulnerability compared to males and are also more likely to experience internalising emotions than males (Chaplin & Aldao, 2014). Research indicates that females generally display higher precision in understanding and identifying their emotions (Barrett, Lane, Sechrest, & Schwartz, 2000), which to some extent might also be related to socialisation processes. In line with findings for cyberbullying, no age differences were found for traditional bullying.

When examining both traditional bullying and cyberbullying and the combination of the two, findings showed that nearly half of adolescents (SA: 47.5%; UK: 47.9%) experienced some form of bullying in the past year either online or offline. The fact that one in two adolescents had been victimised in some way over the past 12 months highlights the importance of this issue. Of these, half had experienced traditional bullying only, highlighting it as the main form of bullying as was found in previous research (Dehue et al., 2012; Livingstone et al., 2012; Modecki, Minchin, Harbaugh, Guerra, & Runions, 2014; Sourander et al., 2010). Furthermore, 17.6% in the UK and 11.6% in SA experienced cyberbullying only. As noted in an earlier section, a EU Kids Online report from 2011 found that 19% of 9-16 year olds across Europe had experienced any form of bullying in the past year (Livingstone et al., 2011). Of those who experienced any bullying, 7% were cyberbullied in the past year (Livingstone et al., 2011). Although these findings are much lower than those reported in the current study, it shows that traditional bullying is more common. This is further supported by

research conducted among adolescents in Spain and Canada which showed that, although traditional bullying affected more adolescents, cyberbullying on its own was experienced by one in ten adolescents (Ortega et al., 2009; Mishna et al., 2015). Although cyberbullying victimisation was lower than traditional bullying as was found in previous studies (Smith et al., 2008; Wang, Iannotti, & Nansel, 2009), the findings show that one in ten adolescents are experiencing a form of bullying as a result of new technology and who, a decade or more ago, may not have experienced any victimisation if it were not for the new context of online media. As such, it underscores the relevance and importance of the issue.

The remaining participants, namely, two in five adolescents in SA (40.7%) and a third in the UK (35.3%) experienced both traditional bullying and cyberbullying in the past year. The SA findings are in line with research conducted among Spanish adolescents (Ortega et al., 2009), while the UK findings are similar to those found by Erdur-Baker (2010) where 32% of students were victims of both traditional bullying and cyberbullying. This corroborates previous studies establishing an important link between traditional bullying and cyberbullying (e.g. Baldry, Farrington, & Sorrentino, 2015; Juvonen & Gross, 2008; Kowalski & Limber, 2007). In addition, the current study found that online and offline victimisation as well as online and offline perpetration were highly correlated. The link is further evident in the findings indicating that perpetrators of cyberbullying are often known to victims, which may indicate that perpetrators are often within childen's school environments. This is also reflected in the relatively high proportion of adolescents, particularly in the UK at follow-up, who did not want to go to school on some days because of something someone said or did to them online. This overlap in offline and online experiences is of concern as children might be experiencing traditional forms of bullying at school as well as cyberbullying that can occur at any time of day or night. They are thus less likely to be able to escape bullying experiences as they are confronted with them in multiple contexts and this is likely to exacerbate the negative effects associated with these experiences.

Although the current study did not explore in detail how exactly offline and online forms of bullying are linked (i.e. whether they are more likely to start offline and progress online or vice versa), previous research has suggested that traditional forms of bullying can extend to

the online environment but that cyberbullying is less likely to evolve into traditional bullying (Casas, Del Rey, & Ortega-Ruiz, 2013; Wang et al., 2009). Others indicate that cyberbullying can also lead to traditional bullying (Sourander et al., 2010). More research is required to determine the pathways between these two forms of bullying. Regardless of the exact process between them, the link is important in relation to effective intervention and prevention strategies. The study lends support to the argument that cyberbullying is not a distinctly separate phenomenon (Jose, Kljakovic, Scheib, & Notter, 2012; Juvonen & Gross, 2008) and, due to the overlap, it should be addressed in conjunction with traditional bullying. Burton and Leoschut (2012) also argue that there is a danger of undermining the issue of cyberbullying when an "artificial divide" is created between the two forms of aggression and where findings show that traditional forms of bullying are more prevalent, which may result in policy makers and other stakeholders disregarding cyberbullying as a serious concern (p.70). Cyberbullying is a phenomenon that warrants high attention within policy and intervention within the issue of bullying as a whole, particularly on account of the proportion of adolescents who also experience cyberbullying as the only form of bullying. Furthermore, the influence of cyberbullying on the offline world of adolescents cannot be undermined considering its potential impact on the school environment (Casas et al., 2013).

8.4 ONLINE RISK BEHAVIOURS AND EXPERIENCES OF ADOLESCENTS

Adolescents in SA engaged in more online risks than adolescents in the UK. Differences were also found for the types of online risks engaged in, with sexting being particularly high in SA. In terms of gender, no differences were found in the UK, but males engaged in more conduct risks at follow-up. In SA, however, females reported significantly more online risk behaviours than males in the cross-sectional study including contact risks and sexting. Contrastingly to the findings showing that females engaged in more online risks than males in the cross-sectional study, the longitudinal study found that males in SA engaged in more online risks overall in the past year. This reflects the need for more research as gender findings vary.

Findings from both countries generally showed that online risk behaviours increased with age, particularly between early and middle adolescence. This is consistent with research in Europe indicating that older adolescents experienced more online risks (Duerager &

Livingstone, 2012). This may offer support to Steinberg's (2010) finding that risk taking and risky decision-making was highest at middle and late adolescence than during childhood and adulthood and calls for more research examining younger and older age groups along with adolescents in order to determine online risk taking across different developmental stages. Linking back to the idea that adolescent online behaviours become more sophisticated over time, Livingstone (2009) argues that even though younger adolescents experience fewer risks compared to older adolescents, they are more likely to lack the skills to cope with the risks they face. As such, although the risks vary with age, the risks faced by younger adolescents may have more serious effects.

Since age trends generally found that online risks increased with age in both countries and that this was especially significant between early and middle adolescence in the cross-sectional study, this provides evidence for adolescent cognitive development. As mentioned, literature in this area indicates that risk taking behaviours are highest at middle and late adolescence compared to childhood and adulthood, creating an inverted U-shaped pattern of risk taking throughout development (Livingstone et al., 2012; Paulsen, Platt, Huettel, & Brannon, 2011; Steinberg, 2007, 2008, 2015). As outlined in the literature review, Steinberg (2008, 2010) attributed this to the dual-systems model in cognitive development during adolescence which creates a period of heightened vulnerability in middle adolescence due to higher reward seeking and lower impulse control at this stage of development. For example, in the SA sample, those in middle adolescence were significantly more likely to give out personal information about themselves online to win a prize and to trust people they meet online in the cross-sectional study; this is an indication of cost-benefit appraisals in online behaviours. Reward-seeking places a focus on the benefits of disclosing information (e.g. in order to win a prize) or trusting people they meet online (e.g. social benefits) which is weighed up against the potential costs. While this appears to be the case in the SA sample, no age-related differences were found for UK adolescents for these two items. Thus, although there is some evidence highlighting cognitive development over time and its impact on risk perception and behaviours in the online context, further research is required to pinpoint age trends more accurately. The following sections discuss the different types of online risks in more detail.

8.4.1 Conduct Risks

Adolescents in SA engaged in more sexting behaviours. In the cross-sectional study, 58.8% reported ever sending or receiving sexual images or comments compared to 36.6% of adolescents in the UK. When asked about sexting behaviours in the past year, twice as many adolescents in SA (68.9%) engaged in sexting compared to adolescents in the UK (33.9%). Although significantly higher in SA, findings in both countries are higher than some international studies (e.g. Dake, Price, Maziarz, & Ward, 2012; Hinduja & Patchin, 2010a; Lenhart, 2007) indicating the high prevalence of this risk behaviour in the two countries. Despite the differences, sexting was consistent across time in both countries. Thus, the findings underscore the importance of this type of online risk among adolescents in general and in SA in particular.

Findings also showed that adolescents were more likely to have received sexting comments or images from others than having sent them, which is in line with previous research (Klettke, Hallford, & Mellor, 2014), but adolescents in SA were significantly more likely to have sent sexting material than UK adolescents. For example, 35.1% of SA adolescents and 21.2% of UK adolescents sent sexting material to someone they knew and 8.8% of SA adolescents and 3.5% of UK adolescents sent sexting material to an online stranger. A review of research conducted by Klettke et al. (2014) found that the prevalence estimates across studies for sending sexts was 10.2%, significantly lower than the current study results.

Females in SA engaged in more sexting, but no gender differences emerged in the UK. These findings are reflected in the literature, with findings on gender and sexting being inconclusive. While some have found that females were more likely to send sexts (Mitchell, Finkelhor, Jones, & Wolak, 2012) and males were more likely to receive them (Hinduja & Patchin, 2010a), others found no gender differences for either sending or receiving sexts (Lenhart, 2009; Lippman & Campbell, 2014). Females engaging in more sexting in SA may be indicative of the argument that sexual self-presentation is a highly gendered practice embedded in cultural and media discourses about gender norms and expectations (Dobson, Rasmussen, & Tyson, 2012). Since sexts are commonly sent to actual or desired romantic or sexual partners, females may feel more pressure to sext due to these gendered expectations of sexuality (Lippman & Campbell, 2014). This was confirmed by research indicating that

females were more likely to have felt pressured into sexting than males (Englander, 2015). At the same time, females are also much more likely to be shamed and viewed as unethical when they engage in sexting compared to males (Klettke et al., 2014; Lippman & Campbell, 2014; Ringrose, Harvey, Gill, & Livingstone, 2013), which reflects the different gender roles and expectations and how these influence behaviours and how they are perceived. Thus, social injunctive norms, defined as individuals' perceptions of which behaviours are approved or disapproved of by others (Aronson, Wilson & Akert, 2010), play a role in some females perceiving sexting as something that they should do to get attention from males which results in sexting behaviours despite their concern over potential consequences (Lippman & Campbell, 2014). Since Lippman and Campbell (2014) found no gender differences in sexting but found that females experienced more pressure to sext compared to males, it is argued that the gender dynamics associated with this behaviour may not necessarily manifest in the frequency of sexting but rather through different evaluations and motivations for the behaviours (Lippman & Campbell, 2014). This suggests that, despite no gender differences in the UK in relation to sexting behaviours, females may still be experiencing more pressure to sext and that there may still be differential gender processes involved. The results from the current study indicate that the gendered and sexual double standards of sexting acts, along with the normative nature of these acts as shown in the high prevalence rates, need to be considered in intervention strategies.

Sexting was found to increase with age, especially between early and middle adolescence. For example, 45.2% of 12-13 year olds in SA had ever sexted compared to 63% of 14-15 year olds and 62% of those 16 and older. Although lower at each age group in the UK, the prevalence rates followed the same pattern, namely, 25.3% of 12-13 year olds had ever sexted compared to 40.9% of 14-15 year olds and 41.1% of those aged 16 and older. The longitudinal study also showed that older adolescents engaged in sexting more frequently in the past 12 months compared to younger adolescents. This is in line with other research suggesting that older age is predictive of sexting during adolescence (Klettke et al., 2014) and that there may be a developmental aspect related to the behaviour (Lippman & Campbell, 2014). This is not surprising since the emerging sexuality of adolescents during puberty is expressed in various ways, including through sexting, and is more likely to occur as adolescents mature.

Although it is acknowledged that not all sexting is problematic and that sexting is only upsetting for a minority (Livingstone et al., 2012), sexting poses a risk for cyberbullying where images or comments are distributed to an unintended audience, commonly the case in 'revenge porn'. The link between cyberbullying and sexting was highlighted in the SA sample at follow-up, namely, victims of cyberbullying engaged in a wider range of sexting behaviours and did so more frequently than non-victims of cyberbullying. There was no difference in sexting behaviours among victims and non-victims of cyberbullying in the UK sample. Thus, cyberbullying outcomes differ between the two countries as a result of sexting, but sexting in general may be a normative experience as previously mentioned. This is an area that warrants more study. Apart from cyberbullying, images or comments that are distributed online can be difficult to remove and can also have serious legal implications. For example, sexting behaviours can be linked to the creation and distribution of child pornography under the Criminal Law (Sexual Offences and Related Matters) Amendment Act of 2007 in SA, while receiving, storing or distributing indecent images of minors is a serious criminal offence in the Sexual Offences Act (2003) in the UK. This legal standpoint is often the focus of interventions with adolescents, but this approach has not been found to be very effective in reducing the behaviour (Lippman & Campbell, 2014). Since sexting is argued to be normative during adolescence, engagement in the behaviour is motivated by approval from others. Thus, individuals may take part in sexting despite the fear that it can result in reputational damage (Lippman & Campbell, 2014). Although informing adolescents about the laws relating to sexting as well as it being a risk factor for cyberbullying is important, this suggests that motivations and subjective norms related to the behaviour should also be explored and discussed. It is argued that this is needed in order to avoid simplistic positions of making potential victims responsible for their behaviour (Salter, Crofts, & Lee, 2013).

General conduct risk behaviours were also consistent across time in SA and the UK, but UK adolescents spent more time with friends online than friends in real life, were more trusting of people they met on the internet, were more comfortable talking to people online than people in real life and also thought it was easier to make friends online than friends in real life in the past year. In the cross-sectional study too, UK adolescents engaged in more conduct risk behaviours than SA adolescents. These conduct risks can result in adolescents becoming less guarded about their online behaviours and inadvertently engaging in risks by sharing personal

information. In a study conducted in 21 countries in Europe, half of adolescents reportedly gave out personal information about themselves online (Hasebrink et al., 2009). Others also noted the extent of information available on adolescent online profiles, with many sharing a large amount of risky personal information that is available to friends of friends in social networks (Vanderhoven, Schellens, Valcke, & Raes, 2014), which may pose a further cyberbullying risk. UK adolescents might be more trusting and more immersed in their online relationships, but this did not affect the extent to which relationships were formed online as shown in the following section relating to contact risks.

8.4.2 Contact Risks

Considering that some adolescents reported feeling more comfortable talking to people online and finding it easier to make friends online, it is not surprising that most had ever been in contact with at least one online stranger whom they had only talked to online and never met face-to-face. While research has suggested that adolescents mostly used ICTs to strengthen existing relationships with known offline individuals (Reich, Subrahmanyam, & Espinoza, 2012), the findings from the current study indicate that most adolescents are also in contact with individuals that they only know from an online space. Considering that research has found that the majority of adolescents had at least one online stranger as a friend on a social networking site (Heirman et al., 2016) and that three in five adolescents in the current study (SA: 60.5%, UK: 60.2%) had spoken to someone new online in the past 12 months, this underscores the social nature of online behaviours among adolescents.

Apart from talking to unknown individuals online, two in five adolescents in SA (39.9%) had ever met an online stranger in person, which is consistent with a previous SA study (Von Solms & De Lange, 2011). Meanwhile, just over a quarter (27.0%) of UK adolescents reported ever meeting an online stranger offline. Meeting online strangers in person also occurred with a similar proportion of adolescents in the past 12 months and, again, SA adolescents were more likely to report this experience (36.5%) compared to UK adolescents (19.4%). In both time frames and in both countries, the findings are considerably higher than was reported in other international studies. For example, 16% of adolescents in Singapore (Liau, Khoo, & Ang, 2005) and 17% in the Netherlands had met an online stranger in person

(Van Den Heuvel et al., 2012). In a review of studies in Europe, 9% of young people had met an online contact offline (Hasebrink et al., 2009). In another SA study, 12% of 12-24 year olds had met someone offline (Burton & Leoschut, 2012).

Of those who had met an online stranger in person, 59.0% of SA adolescents and 48.8% of UK adolescents did not tell an adult about the meeting prior to it taking place. Most also did not tell an adult about the meeting in the past 12 months either, a concern in terms of physical safety. However, most of the meetings were with individuals of a similar age and whom adolescents had been introduced to online through mutual friends. Thus, the majority of encounters appeared not to be a cybergrooming risk. This provides further support for the social importance of ICTs for adolescents who are looking to expand their peer groups. Talking to online strangers and developing relationships with them occurs due to the opportunity online spaces provide that include reduced fear of embarrassment or disapproval due to invisibility of aspects such as physical appearance, shyness or social anxiety which might be barriers offline (Denissen, Neumann, & Zalk, 2010; McCarty et al., 2011; Mesch & Talmud, 2010). This provides some adolescents with the opportunity to interact with others and get to know them before meeting them or establishing friendships and romantic relationships, thereby functioning as an important social tool in adolescent identity exploration and relationship formation.

Highlighing the depths of relationships being formed in online spaces, 28.0% of SA adolescents and 14.8% of UK adolescents in the cross-sectional study had been romantically involved with someone online whom they never met (i.e. the relationship remained online), and 38.5% of SA adolescents and 19.0% of UK adolescents had been romantically involved with someone who they initially met online but the relationship progressed offline. Overall findings indicate that SA adolescents engaged in higher contact risks than UK adolescents. Although experiences of romantic relationships were more consistent among UK adolescents between baseline and follow-up in the longitudinal study, SA adolescents were twice as likely to report romantic experiences in online contexts in the past year. Moreover, females in SA were more likely to establish online relationships than males, a finding which is in line with research conducted in the US showing that females aged between 14-17 years were most

likely to have formed close online relationships with others (Wolak, Mitchell & Finkelhor, 2002).

8.4.3 Content Risks

Overall exposure to various content risks was very high in the current study. Although SA adolescents were exposed to a wider range of risky online content, frequency of exposure was similar in both counties, with roughly a third of adolescents seeing each type of risky content on more than six occasions in the past year. The most highly researched content risk to date has been viewing of pornography online (e.g. Chen, Leung, Chen & Yang, 2013; Sabina, Wolak & Finkelhor, 2008) . Findings from the current study showed that SA adolescents had higher exposure to sexual content online in both parts of the study compared to UK adolescents. Exposure was high in both countries, however, with 83.4% of SA adolescents and 72.1% of UK adolescents having seen sexual pictures or videos online in the past year. A third had seen this content on more than six occasions in the past year. This is a significantly higher proportion than was found in some previous research (e.g. Livingstone & Bober, 2006; Lo & Wei, 2005), although these studies were conducted over a decade ago. More recently, findings in the US indicated that 23% of adolescents had been exposed to unwanted pornography on the internet in the past year (Mitchell, Jones, Finkelhor & Wolak, 2014) and 32.5% of adolescents in Korea (Oh & Choi, 2015). The findings in the current study are higher than these figures and are in line with literarure indicating that exposure to online pornography was normative during adolescence (Chen, Leung, Chen, & Yang, 2013; Sabina, Wolak, & Finkelhor, 2008).

More SA adolescents had ever been exposed to violent content, while more UK adolescents had ever been exposed to hateful or racist content in the cross-sectional study. However, at follow-up, there was no difference between the two countries and findings showed that four in five adolescents had been exposed to violent (SA: 85.9%; UK: 81.4%) and hateful (SA: 81.5%; UK: 82.6%) online content in the past year. This is considerably higher than the third of adolescents who had viewed violent or hateful content online in a study conducted across Europe (Hasebrink et al., 2009). In relation to exposure to hateful content, a study conducted among Finnish adolescents aged 15-18 years found that 67% had been exposed to hateful

online content related to aspects like sexual orientation and ethnicity (Oksanen, Hawdon, Holkeri, Näsi, & Räsänen, 2014). Research has shown that exposure to such content has an effect on perceived social trust and can, therefore, significantly affect online culture (Näsi, Räsänen, Hawdon, Holkeri, & Oksanen, 2015), which can also be argued to have an impact on offline relations. In terms of violent exposure, much of the current research focuses on violent video games (e.g. DeLisi, Vaughn, Gentile & Anderson, 2013; Greitemeyer & Mügge, 2014; Lam, Cheng & Liu, 2013). However, exposure to violent media more broadly has shown that individuals display more physical and relational aggression, have more aggressive thoughts and show less empathy towards others immediately after exposure to violent content (Coyne, Padilla-Walker, & Howard, 2013). This is an important link as it may influence the likelihood of engaging in aggressive acts, including traditional bullying and cyberbullying. However, more research is required on the extent of the effects of exposure to violent online videos and images among adolescents.

In terms of risky information, there was no difference in exposure to information or websites that support extreme diets or eating habits between the two countries, which was viewed by four in five adolescents in the past year (SA: 83.0%; UK: 79.1%). The internet more generally has been found to be a highly relevant socio-cultural medium linked to body image, especially among adolescent girls, with Facebook use being associated with higher body image concerns (Tiggemann & Slater, 2013) as well as more disordered eating patterns (Mabe, Forney, & Keel, 2014). It is argued that the interactive nature of social networking sites as well as the high level of content sharing affects perceptions related to body image (Perloff, 2014). But in relation to content related to eating disorders and extreme diets more specifically, previous research has also linked such content exposure to poorer self-image (Näsi et al., 2014) as well as increased eating pathology (Rodgers, Lowy, Halperin, & Franko, 2016). The ease with which these websites are available under terms such as ‘Thinspiration’ and ‘Thinspo’ are of high concern given their impact.

Although there was no difference in exposure to content related to eating disorders and extreme diets, UK adolescents were more likely to have seen content related to self-harm and suicide. In addition, although exposure to the other types of risky online content remained consistent across time, UK adolescents had increased exposure to this type of content in the

past year (84.9%) compared to ever (71.5%), which was significantly higher than in the SA sample. Exposure to this type of content has been found to have both positive effects in terms of individuals seeking social support as well as negative effects in relation to sharing self-harm techniques and normalising self-harm behaviours (Daine et al., 2013; Whitlock, Powers, & Eckenrode, 2006). According to Mars et al. (2015), searching for content related to suicide and self-harm was linked to self-harm behaviours and suicidal thoughts and plans. Considering this finding, adolescents who are searching for this type of content online may assist in identifying those who are at risk and potentially in need of intervention.

Adolescents in SA were more likely to admit to having viewed risky content on purpose. For example, 73.5% of SA adolescents admitted viewing at least one type of risky content on purpose in the past year compared to 53.8% of UK adolescents. Although intentional and unintentional exposure for each individual type of content risk was not examined, this finding provides some evidence for active seeking of online information and images or videos by many adolescents. This is supported by other studies relating to pornography which showed that most exposure to online pornography by adolescents had been intentional (Chen et al., 2013). Results vary between studies, for example, 21% of adolescents in Sweden reported intentional exposure to pornography (Jonsson, Priebe, Bladh, & Svedin, 2014). However, this study also found that there was an association between intentional exposure to pornography and vulnerability on the internet more broadly, such as harassment (Jonsson et al., 2014). This is evidence that experiences such as cyberbullying may be a reflection of online risk taking more broadly (discussed further in the following section). Although online exposure to pornography has been researched in most detail, intentional and unintentional exposure to the other types of content risks as well as the psychological and behavioural effects related to exposure warrant further research.

In terms of gender, research conducted by Fleming et al. (2006) suggested that males and females were equally likely to have been exposed to risky content online but that that males had higher exposure to pornography and violence. While exposure to pornography was higher among SA males in the cross-sectional study, no gender difference was found in the UK or in either country at follow-up. Thus, exposure to sexual images or videos was high among adolescents overall in the current study and this finding is unlike most research in

online pornography exposure which found that males had accessed this type of content significantly more than females (Böhm, Franz, Dekker, & Matthiesen, 2015; Chen et al., 2013; Flood, 2009; González-Ortega & Orgaz-Baz, 2013; Sabina et al., 2008; Ybarra & Mitchell, 2005). There was generally no gender difference in exposure to violent content. Further gender differences indicated that females in both countries reported higher exposure to harmful information online that included self-harm and suicide, but access to content about suicide and self-harm was similar between males and females in the past year. This suggests that there was an increase in this type of content exposure among males across time. Similarly, although females had higher exposure to information promoting extreme diets or eating habits in the cross-sectional study, there was no difference at follow-up.

Content risk exposure was also very high at each age group, with no difference found in the range of content risks and adolescent age. However, the frequency of exposure increased at each age group, particularly from early to middle adolescence in both countries. Given that adolescents were asked about ever being exposed to various content, it is expected that older adolescents have higher exposure than younger adolescents simply by being older and having higher opportunity to be exposed to risky content over time. For example, studies focusing on age and exposure to pornography have found that it increases with age (Livingstone & Bober, 2006; Ybarra & Mitchell, 2005). The longitudinal study showed no age related differences for content risks, highlighting the high exposure to risky content among all age groups in the past year. High exposure to content risks at each age group (in the longitudinal study) and an increase in frequency of exposure with age (in the cross-sectional study) has implications for the psychological and emotional wellbeing of adolescents who may not be mature enough to make sense of the images or information they are exposed to. In relation to the most widely researched content risk, namely pornography, research has shown that a total of 45% of 18-19 year olds who had seen pornography believed themselves to be too young to have seen it when they first did (Livingstone & Bober, 2004). Exposure to pornography was often found to be disturbing and upsetting, especially among younger adolescents (Flood, 2009).

These findings are important as pornographic and violent content influence perceptions and behaviours due to the ways in which content is interpreted, internalised and normalised by

young people who often share this content with each other. For example, exposure to sexual content was associated with more adherence to sexist notions of sex and relationships, more supportive attitudes towards sexual coercion as well as a higher likelihood of perpetrating assault (Flood, 2009), while exposure to violent content has been linked to more aggressive thoughts and actions following exposure (Coyne et al., 2013). A meta-analysis and large-scale cross-sectional study established an association between frequent pornography viewers and sexually aggressive behaviours, an association which was particularly high for those who viewed violent pornography as well as those at high risk for sexual aggression (e.g. individuals with general aggressive tendencies), which is attributed largely to their differing interpretations and reactions to the content (Malamuth, Addison, & Koss, 2000). Although a major point of discussion in terms of adolescent development and well-being in both countries, this is an especially important consideration in the context of SA where violence in general, and sexual violence in particular, are rife. Ybarra and Mitchell (2005) also found that viewing pornography online was linked to poor parent-child bonds as well as symptoms related to depression among 10-17 year olds, and was also associated with delinquency and substance abuse. Although individuals with predisposing challenges might be more likely to view pornography rather than pornography being a direct cause of the challenges, it nonetheless establishes important links that require future study.

8.4.4 Online Risk Behaviours in Relation to the Other Study Variables

Despite an increase in online behaviours across time in both countries, online risk behaviours in general as well as general conduct risks, sexting and content risks remained stable between T1 and T2. This highlights the consistency of the different types of online risk experiences among adolescents across time (i.e. figures were high both for ever engaging in these risks and in the past 12 months). The activities that adolescents engaged in online, namely, more communication-focused activities, also have the potential to expose adolescents to contact risks through interactions with strangers and developing relationships with them, content risks through sharing links or files with peers, as well as conduct risks through being more comfortable talking to individuals online and potentially exchanging personal information or sharing images or comments of a sexual nature.

Online risk behaviours are often related, for example, meeting online strangers was linked to viewing explicit images or sexting behaviours in previous research (Dowdell, 2013). Although the current study did not examine this in detail, an association was established between online risks and online victimisation and perpetration in both countries. Furthermore, those who had been cyberbullied in SA had higher mean online risk scores, particularly for sexting and contact risks than non-victims. This suggests that cyberbullying as well as online victimisation and perpetration more braodly were a representation of general online risk taking. Research has also linked viewing of websites related to eating disorders to online harrassment (Näsi et al., 2014). As argued by Näsi et al. (2014) and findings from the current study, which found that physical appearance is one of the main aspects adolescents are likely to be cyberbullied about, it is not surprising that viewing of websites related to eating disorders or extreme diets is linked to online victimisation. However, in the UK sample, the link between cyberbullying victims and non-victims and online risk behaviours was not established clearly. Further links between various online risks as well as links to cyberbullying should be explored.

8.5 RISK PERCEPTION: OVERALL TRENDS, GENDER AND AGE

Cost-benefit appraisals of risk behaviours (mentioned in section 8.4) form part of risk perception, which was examined in some detail in the current study. Results showed that online risk perception was not high overall, but adolescents in SA reported significantly higher risk perception than adolescents in the UK. This difference between the countries was found in both the cross-sectional and longtitudinal parts of the study. UK adolescents expressed more benefits relative to costs: they were significantly more likely to believe that the benefits of the internet are far bigger than any dangers and to believe that children who do not have internet access are at a disadvantage compared to those who do. Moreover, considering the higher risk perception in the SA sample, SA adolescents were significantly more likely to report (i) feeling afraid of being harrassed or threatened, (ii) feeling worried about things that can go wrong when online, and (iii) to believe that they would not know what to do in a dangerous online situation, all features of higher risk perception. Thus, the individual items that emerged as significant indicated that SA adolescents demonstrated less confidence in their ability to handle online risks effectively compared to the UK. In contrast, adolescents in the UK were more likely to believe that (i) people on the internet are usually honest about who they are, (ii) that the internet is very safe, and (iii) to believe that

information on the internet should not have an age restriction and that anyone should be able to access anything they want online, all features of lower risk perception. This is in line with research on information sharing behaviour in social networking sites, for example, where individuals who perceived themselves as having more control also had lower perceived privacy risks, which influences the extent to which they shared information about themselves online (Hajli & Lin, 2016). Thus, perceived control as well as cost-benefit appraisals impact on risk perception, which affects behaviour.

Higher feelings of fear and vulnerability in the SA sample can be attributed to higher engagement in online risks and perpetration of online victimisation behaviour. According to Steffgen et al. (2011), cyberbullies were more fearful of becoming victims of cyberbullying than individuals who did not cyberbully others. As such, engagement in risk behaviours impacts risk perception. Others also attributed direct personal experiences to higher risk perception more broadly, with feelings about risks influencing judgments about risk situations (Alhakami & Slovic, 1994; Benthin, Slovic, & Severson, 1993). This was highlighted in the current study since a slight negative correlation was found between online risks and risk perception, suggesting that risk perception decreased as risk behaviours increased. It is also reflected in the finding in the UK sample, where risk perception was higher among victims of cyberbullying than among non-victims. However, this was not the case in the SA sample. Therefore, apart from direct personal experiences influencing risk perception, other factors can also be attributed to these differences. Firstly, a positive correlation was found between the reported level of parental mediation in the home and adolescent risk perception, suggesting that those who reported higher parental mediation of online activities at home also had higher risk perception. Secondly, the difference may also be attributed to differences in the levels of information and workshops related to online safety at schools (and differences in policies more broadly). UK adolescents reported much higher levels of online safety information at school than SA adolescents (see subsequent section) and may thus emerge as more confident in their ability to handle online risks effectively compared to SA adolescents.

Another possible explanation is linked to time spent online and online activities of adolescents. Risk perception was negatively correlated with time spent online and online

activities in both countries, implying that more time online and more engagement in online activities was linked to lower risk perception. Thus, as well as direct personal experiences, risk perception is also influenced by the level of experience with ICTs, with more experience possibly increasing adolescents' confidence in navigating the online environment. However, more experience with ICTs may not only increase confidence but may also increase optimistic bias, leading adolescents to believe that they are at lower risk compared to others. In the cross-sectional study for example, UK adolescents believed that they are better able to handle the risks of the internet compared to others their age but they also reported higher rates of cyberbullying.

In terms of gender, females in both countries expressed higher overall risk perception in the cross-sectional study, which was in line with previous risk perception research which found that females perceived higher online privacy risks and concerns (Youn & Hall, 2008). This held true for each age group in the SA sample, which may highlight the faster maturation of females at each stage of development relative to males. The higher risk perception among females in both countries may also be linked to their higher reported parental mediation compared to males, especially considering the positive correlation found between parental mediation and risk perception. This gender difference was reduced at follow-up, where no overall gender difference was found in risk perception one year later. However, the individual items between the genders still highlighted important differences. Females in both countries were still significantly more likely to worry about things that can go wrong when they were online. Moreover, females in SA felt more afraid of being harassed or threatened online and females in the UK were more likely to state that they would not know what to do if faced with a dangerous situation online. This suggests that females may display vulnerability more readily than males and are, thus, more likely to admit to being afraid or not knowing what to do. It highlights the need to empower adolescents and equip them with the necessary skills to take ownership of their own online safety in general, but especially among females.

Risk perception was found to decrease with age of adolescents in SA, while no age differences were found in the UK in the cross-sectional study. Findings from the longitudinal study, however, showed that risk perception remained fairly stable across time in both countries. However, it also showed that older adolescents had lower risk perception than

younger adolescents, suggesting that risk perception decreased across adolescence, perhaps as their online activities and online risk behaviours increased. As a result, it is also likely that risk perception increases towards late adolescence and early adulthood. This is especially the case considering the social influence effect on risk perception and various online risks perceived as normative during adolescence due to peer involvement (Knoll, Magis-Weinberg, Speekenbrink, & Blakemore, 2015). This social influence effect is likely to decrease in later age groups. The social influence effect as well as risk perception related to online activities and behaviours should be examined further with both younger and older individuals across developmental stages in future research, as was mentioned in relation to online risk behaviours.

8.6 ADOLESCENT REPORTS AND PARENT PERCEPTIONS

Despite the relatively high prevalence of online risk behaviours and cyberbullying among adolescents in the current study, parents significantly underestimated adolescents' involvement in these behaviours. This is consistent with studies in other countries (Byrne, Katz, Lee, Linz, & McIlrath, 2014; Livingstone & Bober, 2006; Wong-Lo & Bullock, 2011) indicating that parents had an unrealistic perception of their child's online experiences. Parents also underestimated the amount of time their children spent online, which was significantly lower than reported by adolescents in both countries. In the literature these differences between adolescent reports and parent perceptions are often attributed to the generational gap in expertise between the parent and child generations (Grossbart, Hughes, Pryor, & Yost, 2002; Livingstone & Bober, 2006). The current study showed that four in five adolescents reported helping their parents do certain tasks on computers, tablets or mobile phones. The lack of parental technical knowledge and expertise as well as a lack of understanding of adolescent online activities, partially due to the differences in the ways adults and adolescents use the Internet, means that parents may not fully appreciate the potential for negative online experiences. This is evident in the proportion of parents who admitted that they did not know which activities their child engaged in online, which was higher among SA parents. For example, one in ten parents in SA admitted that they did not know whether their child used social networking sites (9.3%) or programs that involve uploading and commenting on pictures like Instagram (14.5%), which was in contrast to 0.8% and 5.4% of UK parents respectively. Not surprisingly then, some parents were also unaware if their child had ever had a negative online experience which was also generally

higher among SA parents. For example, 36.5% of parents in SA and 14.7% of parents in the UK did not know if their child had ever been called a hurtful name in an online space. These findings provide clear evidence for the importance of supporting and informing parents about online risks.

In cases where parents do understand the potential for online risks, they often hold an optimistic bias about their own child's online behaviours. This optimistic bias clearly emerged in the current study, where parents underestimated their child's online risk taking behaviours and their experiences of victimisation and perpetration. According to Kite, Gable and Filippelli (2013), children might also not confide in parents about their online risk and cyberbullying experiences for fear that their access to technology will be reduced. This suggests that children do not trust that parents' responses will be helpful and may actually negatively affect their online access which is an important social tool for them. To this end, Byrne et al. (2014) state that open communication between children and parents is key to online safety as not being able to communicate online risk experiences to parents means that parents are likely to underestimate the online risks their children face. This is supported by Stattin and Kerr (2000) who argue that the most likely predictor of parents' knowledge of their child's online activities are not the extent of their behavioural control strategies but the open lines of communication between parents and children. Thus, parental mediation more broadly, as well as the type of parental mediation strategy employed in the home can impact on parent-child communication and can be viewed as a function of the parent-child relationship. This can act as a protective factor for potentially negative psychological, emotional and behavioural effects of these experiences since adolescents do not suffer in silence but are able to confide in and rely on trusted adults.

Adolescents in both countries reported similar rates of parental mediation, which were relatively low overall. While restrictive mediation was similar in both countries, technical mediation, monitoring and active mediation were all higher in the UK. Active mediation was the most common mediation strategy reported by adolescents in both countries as well as parents in the UK, while parents in SA were most likely to report restrictive mediation strategies. Research highlights the importance of active mediation strategies during adolescence, which is argued to play an important role in balancing parental responsibility

and adolescent autonomy during this developmental stage (Stanaland, Lwin, Yeang-Cherng, & Chong, 2015). As mentioned, females reported higher parental mediation than males. This is supported by other studies (Khurana et al., 2014; Kowalski & Limber, 2007). When examining the different types of parental mediation, females reported higher monitoring and active mediation. It may be the case that parents generally view females as being particularly vulnerable which explains the higher mediation in this demographic. Alternatively, females might be more likely to acknowledge mediation strategies at home than males. In terms of age, no significant age trends were found in the SA sample which indicates similar levels of parental mediation across adolescence. Research suggests that parents apply higher mediation strategies to younger adolescents believing that they are more vulnerable and in need of more protection or they may simply feel more able to mediate younger children's online activities (Gentile, Nathanson, Rasmussen, Reimer, & Walsh, 2012). Given that older adolescents do not tend to respond well to control-based mediation strategies, parents are often better able to implement mediation strategies with younger adolescents. This was evident in the UK sample, where parental mediation decreased with age. Thus, no age effects in in SA may highlight the low parental mediation of ICTs overall. Another point to consider is that parents of younger children are likely to be younger themselves and thus may have greater knowledge of ICTs and be better equipped to mediate.

In addition to underestimating online risks and cyberbullying, parents in both countries significantly overestimated the level of parental mediation compared to adolescent reports. For example, most parents reported that there are rules at home that their children need to follow when using the, computer, tablet or mobile phone (SA: 76.9%; UK: 86.5%), but significantly fewer adolescents reported the existence of rules (SA: 38.2%; UK: 45.6%). Most adolescents also reported that, most of the time, they could do whatever they wanted online without anyone checking up on them (SA: 66.4%; UK: 61.0%), which was in contrast to parent perceptions (SA: 42.6%; UK: 38.2%). Again, the generational gap in technical knowledge and expertise must be considered as parents are limited in the mediation they can provide if they do not know how to use the technology or what behaviours their children are engaging in online. As outlined by Livingstone and Helsper (2008), parents' online experiences and skills link to greater knowledge of the online risks their children may encounter and give them more confidence to be able to mediate those risks. Another aspect highlighting the need to educate parents and provide them with the necessary support and

skills to mediate is the proportion of adolescents in SA who reported that corporal punishment was a consequence of breaking rules about ICTs at home. Although corporal punishment is prohibited in SA in the justice system (Abolition of Corporal Punishment Act 1997), education system (South African Schools Act 1996) as well as in alternative care settings (Children's Act 38 of 2005), it is not prohibited in the home setting, although it is discouraged (Amended Children's Act 2007). Thus, corporal punishment as a consequence to online media use during adolescence may be a reflection of the use of corporal punishment in homes in general, as well as a reflection of parental frustration and potential feelings of a lack of control in relation to adolescent online activities. Furthermore, the differences between adolescent reports and parental perceptions of mediation also suggest that rules may not be communicated or enforced effectively in the home context, as was outlined in other research (Bumpus & Werner, 2009). There may also be some level of social desirability bias in the parent sample, which results in over-reporting of parental mediation strategies as was also found in previous research (Buckingham, 1993; Buijzen, Rozendaal, Moorman, & Tanis, 2008).

8.7 IMPACT OF PARENTAL MEDIATION ON ONLINE RISKS AND CYBERBULLYING

Parental mediation interacted with several of the other study variables, providing an exploratory insight into its impact on adolescent online behaviours. Findings showed that higher parental mediation was associated with less time spent online and fewer online activities. Higher parental mediation was also associated with fewer online risks among UK adolescents but not among SA adolescents. Although this was only a marginal relationship, parental mediation had some positive impact on reducing online risks among UK adolescents, which supports findings from other studies (e.g. Rosen, Cheever, & Carrier, 2007; Livingstone, Haddon & Görzig, 2012). In SA, higher parental mediation was actually associated with higher victimisation experiences, but again this relationship was very weak. These contradicting findings were also established in the EU Kids Online reports, where differences were found between countries. For example, parental mediation in general resulted in reduced online risks in Ireland but increased online risks in Poland (Hasebrink, Livingstone & Haddon, 2009). Where findings show that higher parental mediation was associated with higher online risks, it is argued that, rather than parental mediation resulting in an increase in victimisation experiences, these results may reflect parents' implementation

of more parental mediation strategies due to increased awareness of their child's victimisation experiences online (i.e. parental mediation increased as a result of the child's victimisation rather than as a prevention strategy) (Duerager & Livingstone, 2012). There is evidence for this argument in the EU Kids Online research which shows that parents tended to change their strategies if their child experienced online risks, most notably if they experienced seeing sexual content or if they received sexual messages online (Livingstone, Haddon & Görzig, 2012). Since cause and effect cannot be established from these associations and parental mediation in some cases only occurs or increases as a result of online risks being encountered, this further points to the lower (or less effective) parental mediation in the SA sample.

The different parental mediation strategies also produced some interesting insights. In both countries, higher restrictive mediation was negatively associated with online risks and, in the UK, higher restrictive mediation was also associated with lower online victimisation. This is in line with previous research (Duerager & Livingstone, 2012; Kirwil et al., 2009; Mesch, 2009). It is argued that restrictive mediation is negatively associated with online risks and cyberbullying because it reduces the time adolescents spend online and limits their online activities (Khurana et al., 2014). Thus, the opportunity to encounter online risks and perpetrators of cyberbullying can be reduced through restrictive mediation strategies. However, this can simultaneously reduce the opportunities associated with online media and prevents young internet users from learning to cope with the online risks they encounter (Livingstone et al., 2012).

Technical mediation and monitoring were both associated with higher online risks and higher victimisation in the SA sample. Active mediation was also associated with higher victimisation. Again, it may be more likely that parents implemented these mediation strategies in hindsight, once victimisation and online risks had already been encountered by adolescents. Indeed, research show that an increase in restrictive mediation, monitoring and active mediation were often found after a child's exposure to an online risk (Livingstone, Haddon & Görzig, 2012). The results for technical mediation and monitoring may also be an indication that adolescents do not respond well to control-based mediation strategies and that these strategies are often met with resistance. According to Shin and Ismail (2014), control-

based mediation strategies resulted in higher online risk taking than discussion-based strategies. However, active mediation occuring after online risks have already been encountered may account for why this discussion-based type of mediation was associated with higher victimisation in the current study. In practice, parental mediation is unlikely to be contributing to more online risks and research on parental mediation generally show its positive effects (e.g. Livingstone, Haddon & Görzig, 2012; Khurana et al., 2014; Farrington & Ttofi, 2009; Mesch, 2009). It is also especially difficult to isolate which mediation strategies are used for prevention and which are used as a response to an online risk encounter. As such, the recommendations presented in Chapter 11 relate to the positive effects of mediation strategies and the need to further strengthen these in the home context. Further research should examine cause and effect relationships more directly as this cannot be concluded from this data.

The current study also found clear signs of privacy preservation among adolescents in both countries indicating the desire for independence and autonomy. Although privacy preservation was high overall, it was significantly higher in SA than in the UK. For example, most adolescents in SA (70.6%) and just over half in the UK (53.5%) have deleted emails or other messages so nobody could read them and nearly two-third of SA adolescents (63.8%) and again just over half of UK adolescents (55.0%) had minimised or closed windows or programs or hid their device when someone came into the room or too close to them. Females in SA were more likely to have engaged in both of these actions compared to males, while in the UK these two actions were highest at late adolescence indicating that older adolescents were more likely to engage in privacy preservation behaviours. Since online risks and victimisation experiences tended to increase with age, and females in SA engaged in higher online risks and victimisation experiences than males, this suggests that privacy preservation actions are higher when online risk behaviours and experiences are higher. This holds true for the SA sample, where a relationship was found between privacy preservation and online risks, online victimisation as well as perpetration. Therefore, those engaging in more risks may have more to hide. In the UK, however, privacy preservation decreased as online risk behaviours and victimisation increased. Due to these conflicting results, it is unclear how exactly privacy preservation actions play out in relation to online risks and negative online interactions and cyberbullying. However, it is clear that privacy preservation actions are prevalent among adolescents in general. It also reflects the low level of disclosure to parents

about online activities, resulting in less parental awareness, which poses a challenge for parental mediation and online safety efforts (Sorbring & Lundin, 2012).

The level of reported parental mediation was positively correlated to privacy preservation actions, suggesting that the more parents mediated online activities the more adolescents sought to preserve their privacy. Again, this indicates the challenges in online safety, where parents and adolescents are situated in opposing roles to an externally-generated problem (Livingstone & Bober, 2006). Rather than focusing solely on parental mediation strategies to mediate online behaviours and reduce risk to adolescents, these fingings highlight the importance of building on the parent-child relationship in order to increase disclosure and trust as discussed by Darling (2007). Furthermore, adolescents having access to technology in the privacy of their bedrooms as well as accessing the internet on mobile phones which are more private devices, adds to the challenge of implementing and enforcing parental mediation strategies and also allows for more privacy and a lower need for disclosure given the extent of privacy available to adolescents in the current study. Parents are, therefore, faced with the difficult task of balancing their parental role of keeping their children safe, while also respecting their adolescents' desire for independence and privacy.

8.8 SCHOOL MEDIATION

In addition to the home context, most adolescents reported that there were rules that they had to follow at school regarding ICTs. Despite this, a fair proportion of adolescents also did not know whether certain rules existed. As previously indicated, schools may not have anti-bullying strategies in place (Smith et al., 2012) or, where they do exist, they may not be communicated to the whole-school community. In addition, a third of adolescents in the UK (34.2%) and one in five adolescents in SA (22.5%) perceived that it was easy to get around rules at school about ICTs, highlighting a further gap in implementing and enforcing rules (and policies) consistently in the school context. Still, most adolescents (SA: 65.3%; UK: 80.1%) reported that their school had stricter rules about ICTs than the rules they had at home. This is an indication that schools are making some effort to address ICT use and behaviour.

Overall, school mediation (according to adolescent reports) was higher in the UK than in SA. This is not surprising as much current research on cyberbullying has focused on developed countries and various laws and frameworks have been put in place to address the issue (discussed in the following chapter). Active mediation strategies were also compared in the home and school settings and findings showed that active mediation was higher in the home context for the SA sample while in the UK there was no difference between active mediation in the home and school contexts. These findings indicate that schools in the UK might currently be more involved in implementing active mediation strategies by talking to children about online safety and appropriate online behaviours compared to schools in SA, where a greater focus might be placed on other social problems in the school context. The findings based on adolescents' perceptions suggests that SA is lagging behind on implementing online safety strategies in the school context, which has also previously been highlighted (De Lange & Von Solms, 2012). The differences were also reflected in the longitudinal study results, where adolescents in the UK were more likely to have received any talks or workshops about any aspect of online safety in the past 12 months (63.2%) compared to SA adolescents (35.4%). However, there was no difference in risk perception or online risk behaviours and cyberbullying experiences between adolescents who had received talks in the past year and those who did not. This suggests that these workshops or talks had little impact on adolescents online behaviours and experiences. Research has indicated that teachers often lack confidence or expertise in addressing issues relating to ICTs or talking to adolescents about online safety (Eden, Heiman & Olenik-Shemesh, 2013; Huang & Chou, 2013; De Lange & Von Solms, 2012). Further research indicates that teachers believed that cyberbullying should be a priority and offered various strategies that would be useful to address the issue but no policies had been implemented (Eden, Heiman & Olenik-Shemesh, 2013; Cassidy, Brown & Jackson, 2012). A study conducted in Canada found that, despite teachers' views that cyberbullying was an issue to be addressed, little interest was shown in learning the prevalence of cyberbullying among their students (Cassidy, Brown & Jackson, 2012). This indicates the need to support schools in their ability to disseminate information at the appropriate level and educate teachers about issues relating to ICTs as well as highlighting the importance of addressing cyberbullying due to its effects on individuals as well as the school climate.

This chapter discussed the key findings from the cross-sectional and longitudinal part of the study. The following chapter outlines the main findings across the different parts of the research, including the qualitative and quantitative findings, and discusses the need for a holistic approach to online safety efforts.

CHAPTER 9

GENERAL DISCUSSION

9.1 INTRODUCTION

The previous chapters highlighted the gaps in the literature, the ways in which the current research aimed to address these gaps and presented the methodology, as well as both the qualitative and quantitative study results and discussions, in an effort to address the research question. This chapter links together the main findings in the thesis from both the focus groups as well as the cross-sectional and longitudinal study results. It first highlights the key findings. It also discusses some of the main law and policy differences between the two countries, which are an important consideration in interpreting these findings. Finally, the key findings are discussed in relation to the Bio-ecological systems theory (Bronfenbrenner, 1979) that was adapted by Johnson and Puplampu (2008) to include a Techno-Subsystem that takes into account the technological impact on development. The theoretical framework argues for a holistic approach in addressing online risks and cyberbullying.

9.2 KEY FINDINGS

The studies in this thesis explored numerous variables in five different schools in two countries with both adolescent and adult participants, and across two different time frames. As a result, within and between each of these research components, the findings are extensive. However, 12 key findings, incorporating both the qualitative and quantitative results, are summarised and discussed in this section. These are the focus of subsequent recommendations.

1. **Adolescents in a developing country context are not unlike their counterparts in a more developed context in relation to access to ICTs, time spent online or preferred online activities.**

Adolescents in SA had similar access to technology and spent a similar amount of time online as adolescents in more developed contexts when compared with other studies and, although adolescents in the UK spent more time online and engaged in more online activities in the

cross-sectional study, this was not the case at follow-up. Therefore, it is argued that ICTs are an integral part of adolescent social worlds, irrespective of the context. This is facilitated by the extensive use of mobile phones and their primary role in internet access among adolescents, established in this study and others (e.g. Calandro, Stork & Gillwald, 2012; Berger & Ashkay, 2012). With smartphones being more readily available, as well as the widespread access to wifi, this increasingly bridges the gap in any potential differences in technological infrastructure between countries. Similar access to computers and tablets was also found. Importantly, the online activities adolescents engaged in are mostly social, with the use of social networks and programs that involve uploading or commenting on pictures (e.g. Instagram and Snapchat) being most popular. Although trends in other online activities vary, the social nature of adolescents' preferred online activities appear to be a more global trend (Haight, Quan-Haase & Corbett, 2014; Mesch & Talmud, 2010; Von Solms, 2011). This suggests that, despite some differences in preferences of certain online activities or behaviours which may lead to different experiences of risk, adolescents can be argued to be homogenous in their immersion in the digital age in terms of the most popular activities as well as the access and use of ICTs. This was further reflected in the focus group findings when adolescent identity was linked to technological use, which underscores the importance of ICTs in adolescents' lives.

2. Cyberbullying affected one in four adolescents in the past year.

The focus groups highlighted broader debates in the literature relating to the definition of cyberbullying, where criteria such as intentionality, imbalance of power and repetition (see Olweus, 1993, 2003; Menesini et al., 2012; Smith & Steffgen, 2013) were mentioned. Participants expressed different views about the different aspects, especially in relation to repetition, with many participants being unsure whether behaviours needed to be repeated in order to constitute cyberbullying. This debate also occurred among teachers, who did not know how to differentiate cyberbullying from other negative adolescent interactions more generally. This broader debate (see Dooley et al., 2009; Menesini et al, 2012; Patchin & Hinduja, 2015) is a limitation in cyberbullying research to date, resulting in studies using different definitions, measures and time-frames and producing vastly differing prevalence rates as well as gender and age trends, which prevents firm conclusions from being drawn. This is further exacerbated by rapid changes in technology and use, resulting in study

findings becoming outdated very quickly. Considering these broader debates and the findings from the focus groups, the current research differentiated between cyberaggression more broadly as well as adolescents' subjective labelling of experiences as cyberbullying.

Although most adolescents had at least one victimisation experience, many of which occurred more than once, 43% of adolescents in the UK and 34% of adolescents in SA said they had ever experienced cyberbullying. A quarter in each country experienced cyberbullying in the past year. This prevalence rate is very high, but may also be underestimated due to relying on adolescents' understanding of what constitutes cyberbullying and labelling their experiences as such, which may be different in each country as a result of differences in educational and media campaigns or policies. It is also likely that some adolescents are reluctant to admit to being a victim of cyberbullying, choosing instead to refer to these behaviours as 'drama' (Marwick & Boyd, 2014). This is further reflected in that nearly no participants who admitted perpetration labelled their actions as cyberbullying. Since adolescents in the focus groups indicated that there was a fine line between playful teasing and cyberbullying, this may be a reflection of the intentions behind their actions. However, it may also reflect a lack of awareness of the impact of such actions. In sum, the findings indicate that cyberbullying is a serious issue in both countries.

3. **Adolescents experienced multiple roles in negative online interactions, with most victims also being perpetrators, and many also witnessing cyberbullying.**

A clear link was established between those who experienced online victimisation and those who perpetrated them, with most adolescents admitting to being both a victim and perpetrator. This was also established in previous studies (Burton & Leoschut, 2012; Kowalski & Limber, 2013; Patchin & Hinduja, 2006) and brings to light the complexity of the issue in online spaces, due to the nature of online communication. As mentioned in the focus groups, the sense of safety and disinhibition, along with power dynamics in online spaces operating very differently to offline spaces, facilitates these multiple roles, as suggested by other studies (Bauman, Toomey & Walker, 2013; Kite, Gable & Filippelli, 2013). Moreover, a very high proportion of adolescents had also ever witnessed cyberbullying, with many stating that they often witnessed cyberbullying in online spaces. These findings point to the need for interventions which address cyberbullying from the

perspective of numerous roles including victims, perpetrators and witnesses, since most adolescents are a combination of these.

4. Cyberbullying is not a separate phenomenon from traditional bullying.

Half of adolescents in the current research experienced some form of bullying in the past year, either online or offline. Most experienced traditional bullying only, followed by those who experienced both traditional bullying and cyberbullying. This supports previous findings indicating that traditional bullying is the main form of bullying experienced by children and adolescents (Livingstone et al., 2012; Modecki et al., 2014) and that traditional bullying and cyberbullying are linked (e.g. Baldry, Farrington & Sorrentino, 2015; Juvonen & Gross, 2008; Slonje & Smith, 2008). This link was also expressed by adolescents in the focus groups, who described traditional bullying experiences as a risk factor for cyberbullying and an extension of conflict that occurs face-to-face. Moreover, the proportion of adolescents who stated that they did not want to go to school on some days because of something that someone said or did to them online, as well as the fact that most adolescents who had a experienced online victimisation knew who their perpetrator was, highlights this online-offline link further. Although it is unclear from the current research how these experiences progress from one context to the next, research has found that conflict at school can expand to the online environment (Jones, Mitchell, & Finkelhor, 2013). Similarly, individuals may retaliate online (Vandebosch & Van Cleemput, 2008) in order to counteract feelings of vulnerability and powerlessness, leading them to perpetrate cyberbullying as a function of empowerment (Wright & Li, 2012), which is in line with General Strain Theory (Agnew 1992, 2009 – for details see section 2.3.4). The focus groups also supported the notion that there is more opportunity to react online, since power imbalances that may exist in person (such as physical strength) disappear in the online context, as was previously argued (Bauman, Toomey & Walker, 2013; Dooley et al., 2009).

The link between traditional bullying and cyberbullying has important implications in terms of intervention and prevention efforts, namely, that cyberbullying should supplement broader bullying prevention efforts and school safety initiatives. Given that one in ten adolescents experienced cyberbullying as the only form of bullying in the past year, cyberbullying cannot be considered less relevant or less important within broader bullying prevention efforts.

Similarly, treating cyberbullying as a separate issue from traditional forms of bullying misses their important link and is counterproductive in prevention efforts. If cyberbullying is in many cases a reflection of offline experiences, it can have a direct impact on the school social climate and school attachment (Bauman, 2007). Disregarding cyberbullying as an issue of lesser importance because of a focus on violence in general as well as other social problems, as was described in the focus groups among teachers in SA, means that the issue cannot be at the focus of campaigns or policies. It is, thus, important to bring the issue to the forefront as part of larger violence prevention efforts, school safety, and efforts to improve the school social climate. In sum, though the differences in these two forms of bullying should be acknowledged, prevention and intervention efforts should focus on addressing both traditional forms of bullying and cyberbullying.

5. **Cyberbullying is associated with serious psychological, emotional and behavioural effects.**

Apart from general feelings of concern, fear and sadness expressed by adolescents in the current studies, the detailed open-ended questions accompanying this section of the survey indicated the severe consequences to adolescents' self-esteem and severe psychological consequences such as anxiety, depression and suicidal thoughts. In fact, suicidal thoughts often accompanied other emotions. This reflects the importance of greater detection of cyberbullying (and traditional bullying) acts as well as depressive symptoms by individuals in adolescents' immediate environments to ensure that interventions are timely. In addition, the findings call for suicide intervention and prevention efforts to form part of anti-bullying programs as was found in previous research (Litwiller & Brausch, 2013; Van Geel, Vedder & Tanilon, 2014). Considering that the negative effects are associated with both victims and perpetrators (Beckman, Hagquist & Hellström, 2012; Kowalski & Limber, 2013) perhaps on account of individuals often being both victims and perpetrators in different scenarios, it is also important to work to address this issue according to these multiple roles, as was previously mentioned. Educating adults in the potential effects associated with cyberbullying, which also includes various conduct problems (Hinduja & Patchin, 2007) as well as psychosomatic symptoms (Sourander et al., 2010), means that adults in adolescents' more immediate environments (home and school) will be better able to detect these experiences. This is especially important considering that the current research found that adolescents often

do not communicate these experiences to adults, which was in line with previous findings (Kite et al., 2013).

6. Adolescents in SA engage in more online risks than adolescents in the UK.

Adolescents in SA engaged in more online risks overall compared to adolescents in the UK, particularly in relation to sexting and contact risks. Firstly, more SA adolescents engaged in sexting, both ever and in the past year. For example, 69% of SA adolescents and 37% of UK adolescents sent or received sexts in the past year. Thus, SA adolescents were nearly twice as likely to have engaged in this risk behaviour compared to UK adolescents. However, prevalence rates were high in both countries relative to some international studies (e.g. Dake et al., 2012; Hinduja & Patchin, 2010a). Therefore, the findings suggest that sexting may be a normative experience during adolescence (Lippman & Campbell, 2014). It is an important behaviour to address because of its potential negative consequences that include cyberbullying. For example, in SA, victims of cyberbullying engaged in more sexting behaviours than non-victims of cyberbullying. More research is needed to understand the motivations and social injunctive norms related to these behaviours among adolescents (Lippman & Campbell, 2014), in order to create more comprehensive intervention efforts.

Secondly, adolescents in both countries were equally likely to talk to online strangers. In fact, three in five adolescents had spoken to someone new online in the past year. However, adolescents in SA were more likely to have met these individuals in person compared to UK adolescents. SA adolescents were also much more likely to establish romantic relationships with individuals met online, which either remained online or progressed offline. Important to note, however, is that most individuals that were met in person or with whom relationships progressed were peers of a similar age. As such, despite some of these encounters still having the potential to pose physical risks, especially when these encounters occur without any adult knowledge which was high in the current study, the findings show that most of the encounters are not a cybergrooming risk. Instead, this further highlights the importance placed on expanding social ties during this developmental stage (Mesch & Talmud, 2010).

There was no difference between adolescents in their content risk exposure, which was exceptionally high in both countries for sexual, violent or hateful content as well as information related to eating disorders and extreme diets, as well as suicide and self-harm. Adolescents in the UK were, however, more likely to access content about suicide and self-harm than SA adolescents. This is important in identifying individuals at risk and potentially in need of intervention, as some studies have found that exposure to this content can lead to suicidal thoughts and plans (Mars et al., 2015). This is especially important to note considering the suicidal thoughts expressed by some victims of cyberbullying. Moreover, since online risk experiences were found to be linked in some studies (Dowdell, 2013), and that cyberbullying in the current study emerged as a reflection of online risk taking more broadly, this type of content risk exposure is important in identifying potentially at-risk youth. In general, exposure to various types of content risks can influence adolescent perceptions and increased exposure can also serve to normalise certain behaviours. Since many adolescents accessed at least one of these types of content on purpose, and that exposure often occurred on more than one occasion, this can have a significant impact on adolescent development and well-being. This is especially important considering that there was no age difference in exposure to content risks and that younger adolescents were just as likely to have been exposed to any of the content as older adolescents.

7. **Gender differences in online risk behaviours and online victimisation varied between SA and the UK, but females in both countries had higher risk perception and reported higher parental mediation than males.**

Females in SA engaged in more online risks in the cross-sectional study, a pattern that also emerged in a study by Mitchell et al. (2012). This may be linked to the different preferences of online activities between males and females, which leads them to experience different types of online risks. For example, the findings showed that females were more likely to use programs that include posting or commenting on pictures, while males were more likely to use programs that involve uploading and sharing videos as well as online gaming. When the types of online risks were examined in the SA sample, females were found to engage in more conduct risks in general as well as sexting in particular. Since sexting was higher among SA females, but no gender differences were found in the UK, this highlights the inconclusive gender findings in much of the current literature in the area (Lenhart, 2009; Lippman &

Campbell, 2014). These inconclusive findings are further reflected in the longitudinal study results, which showed that males in SA engaged in a wider range of online risks than females.

Females in SA were significantly more likely to have been victimised online and were also more likely to have ever experienced cyberbullying. Higher involvement by females is supported by some previous studies (e.g. Beckman, Hagquist & Hellström, 2013; Ortega et al., 2009). In contrast, no gender differences were found in the UK, as established by some other studies in the area (Katzer, Fetchenhauer & Belschak, 2009; Tokunaga, 2010). These findings reflect the inconclusive gender findings in cyberbullying literature to date. It was also argued that the potential disparity in online victimisation and perceiving those experiences as cyberbullying and (and particularly the high discrepancy between SA and the UK in reported face-to-face victimisation and perceiving those experiences as traditional bullying) means that there may be differences in awareness and understanding of the concept of cyberbullying as well as bullying more broadly between the two countries.

Clearer gender differences were established in relation to risk perception and parental mediation, however. Females displayed higher risk perception, which was found in both countries in the cross-sectional study as well as in SA in the longitudinal study. This has some support in the literature (Youn & Hall, 2008). However, no gender difference emerged in risk perception in the UK at follow-up, indicating variation across time. Females also reported more parental mediation than males, as previously noted (Khurana et al., 2014; Kowalski & Limber, 2007). In both countries monitoring and active mediation was higher among females than males. The way in which parents mediate online activities differently between male and female adolescents may point to different gender socialisation processes. As argued in the previous chapter, parents may view females as more vulnerable and in need of protection, which results in higher implementation of mediation strategies. However, for the same reasons related to socialisation, females may be more likely to acknowledge mediation strategies than males.

8. **Online risk behaviours increased, while reported parental mediation decreased with each age category of adolescents.**

The cross-sectional study showed that overall online risk behaviours increased with age of adolescents in both countries, especially between early and middle adolescence. One possible explanation for this was the claim that adolescents engage in more complex interactions and become more technologically sophisticated as they get older (e.g. Tarapdar & Kellett, 2011). Sexting also increased between early and middle adolescence, which also reflects development across adolescence and particularly in relation to emerging sexuality during puberty. This age pattern emerged in previous research (Klettke et al., 2014; Lippman & Campbell, 2014). In addition, content risk experiences were found to be high in all age groups, but frequency of exposure increased with age. Overall age trends were not reflected in the longitudinal study to the same extent in both countries, however. While no age differences were found in the UK, SA findings showed that online risks increased among males and decreased among females over the period of one year, from middle to late adolescence. No age differences found in the UK may be due to the smaller sample and wider age range sampled at follow-up compared to SA, making effects less likely to be observed.

In addition to this, no age differences were found in cyberbullying experiences, but online victimisation increased with age. These findings support the notion that risk taking increases with age in relation to adolescent cognitive development (e.g. Steinberg, 2007), which may decrease at the end of adolescence and early adulthood. Although younger adolescents appear to be less at risk in the current study, Livingstone (2009) argued that they are also more likely to be less resilient and lack the necessary skills to cope with risk experiences effectively. Thus, the negative effects related to these experiences might be more serious for younger adolescents. While online risks increased with age, overall parental mediation decreased with age in the UK. In addition, in both countries, restrictive mediation in particular decreased with age of adolescents. This is similar to previous research, where restrictions on access and use, and other more control-based strategies, are more likely to be applied to younger adolescents where parents may feel more in control of their children's behaviours (Gentile, Nathanson, Rasmussen, Reimer, & Walsh, 2012), while older adolescents are more difficult to mediate. Further research examining age trends is needed in order to clearly explain these differences.

9. **Parents underestimate adolescent online activities, online risk behaviours, and cyberaggression.**

The study showed that parents have an unrealistic perception of their child's online activities, the amount of time their children spend online, online risk behaviours as well as experiences and involvement in cyberaggression. This was also highlighted in previous research (Livingstone & Bober, 2006; Byrne et al., 2014). Many parents admitted that they simply were unaware whether their child was engaging in various online activities, particularly parents in SA. For example, two of the most popular activities among adolescents were social networking and using programs to comment or upload images (e.g. Instagram or Snapchat). One in ten parents in SA reported that they did not know whether their child used either of these programs (9.3% and 14.5% respectively), which was in strong contrast to parents in the UK (0.8% and 5.4% respectively). Thus, although parents underestimated their children's online activities in general, this emerged as particularly problematic in SA. Considering that most adolescents in the study had high access to ICTs, used computers in private areas of the home and had access to the internet on more private devices, it is not surprising that parents were less aware of what adolescents are doing online. This was also reflected in the focus group discussions, where adolescents stated that parents did not know how to use various online programs that were of interest to adolescents, nor were they aware of what behaviours adolescents were engaging in. Teachers also expressed that parents often believed their children to be more innocent in their use of ICTs than they actually were. If parents do not know how to use programs of interest to adolescents, it is unlikely that they can fully appreciate the potentially negative consequences that can stem from their use. As such, they tended to underestimate their child's online risk experiences and involvement in cyberaggression.

These differences between adolescent behaviours and parent perceptions can be attributed to several factors. Firstly, the generational gap in ICT use has an impact on parental awareness, as reported in previous research (Grossbart, Hughes, Pryor, & Yost, 2002; Livingstone & Bober, 2006). The digital divide in use and understanding of ICTs positions adolescents as experts in technology relative to their parents. This poses a challenge for online safety efforts. As mentioned, parents fail to appreciate online risks fully if they do not understand the programs and activities their children are involved in, leaving children to navigate online

spaces by themselves. Secondly, parents may hold an optimistic bias about their own child's behaviour relative to other adolescents their child's age. Thus, although parents might be aware of online risks in general (particularly stories presented in mainstream media), they may not see the risks as being personally relevant to their own child.

Finally, lower parental awareness can be attributed to adolescents often not disclosing negative online experiences to parents as they either fear that their access to ICTs will be reduced (Kite et al., 2013), or they do not trust parental responses or do not believe parents will understand. As expressed in the focus group interviews, adolescents fear that parents will overreact and potentially exacerbate the situation further, or they fear that parents will underreact and tell them to ignore the situation. Again, this may be linked to the generational gap, with adolescents being experts in ICTs and not being confident in adult responses or advice to online situations. Research suggests that open communication between parents and children is an important protective factor for online risk experiences and that the inability to communicate online experiences to parents results in parents underestimating risk behaviours (Byrne et al., 2014). Low disclosure to adults was also evident in that adolescents were most likely to tell their friends about a cyberbullying incident, which was also shown in other studies (Burton & Leoschut, 2012; Livingstone et al., 2012; Udris, 2015). Furthermore, adolescents' search for independence and autonomy is an additional factor in low disclosure of online risk experiences, with adolescents keeping many of their actions private, leading adults to be largely removed from adolescents' online worlds (see point 11).

10. Parents overestimate parental mediation in the home relative to adolescent reports.

Adolescents indicated that parental mediation was low overall. Although restrictive mediation was similar in both countries, technical mediation, monitoring and active mediation were higher in the UK. Adolescents reported that active mediation was the most popular strategy used by parents in both countries. This is encouraging given the importance of the parent-child relationship in mitigating online risk experiences (Fanti, Demetriou, & Hawa, 2012; Wells & Mitchell, 2008). Restrictive mediation was also a popular strategy employed by parents, which focuses on restricting access to and use of certain online media. Therefore, both discussion-based and control-based strategies were implemented by parents

in their online safety efforts. When comparing parent responses between the two countries, there was no difference in parental mediation overall, but parents in the UK used more active mediation strategies, while parents in SA used more restrictive mediation strategies.

Parents in both countries significantly overestimated the level of parental mediation relative to adolescent reports. This discrepancy can be attributed to various aspects, which have been implicated in previous studies. Firstly, parents may be displaying social desirability bias in their self-reports in order to present themselves as responsible parents, thereby reporting more mediation than actually takes place in practice, which has been argued in previous research (Buckingham, 1993; Buijzen, Rozendaal, Moorman, & Tanis, 2008). Secondly, children may not acknowledge the rules due to a lack of enforcement or consequences for breaking these rules (Bumpus & Werner, 2009). Thirdly, linked to the generational gap, parents may genuinely believe that they are providing some monitoring and supervision of internet use but their technical knowledge of the medium is lacking. With the advancement in technology and new media, a lack of technical knowledge of parents acts as a major barrier to effective mediation strategies in the home. Linked to point 9, parents are unlikely to be able to mediate effectively if they are not aware of online activities nor fully understand potential online risks. Moreover, parents' own experience of online spaces and their perceived internet skills not only imply greater knowledge of the risks their children may face, but also give them more confidence to mediate (Livingstone & Helsper, 2008). This highlights the importance of supporting and educating parents to enhance the effectiveness of parental mediation efforts.

The effectiveness of parental mediation was highlighted by the correlation analyses, which showed that only restrictive mediation reduced online risk behaviours, while the remaining strategies increased either online risk behaviours, negative online experiences, or both. This suggests that parental mediation strategies may have been implemented after an online risk encounter had already taken place, as argued in previous research (Duerager & Livingstone, 2012). Thus, it appears that, apart from restrictions, many of the other strategies parents use to mitigate online risks may only be implemented once online risk experiences have been encountered. During adolescence there are also unintended effects related to parental mediation, such as adolescents not feeling trusted which can impact the parent-child

relationship. This was reported in the focus group interviews as well as in previous research (Nathanson, 2002). These findings highlight the complex bidirectional influence of adolescents and parents and the importance of the parent-child relationship in online safety efforts.

11. Adolescents engage in privacy preservation actions to exercise autonomy and independence.

Privacy preservation actions were high overall, but adolescents in SA engaged in more privacy preservation actions compared to adolescents in the UK. Privacy preservation was higher among females than males in SA, and higher among older adolescents than younger adolescents in the UK. Considering that females in SA engaged in more online risks and had more negative online experiences, and that older adolescents reported more online risks overall, this provides some evidence for privacy preservation actions being higher among those who take more online risks. However, while this applied in the correlation analyses in SA, where higher privacy preservation was associated with higher online risk behaviours, higher privacy preservation in the UK was associated with fewer online risks. This points to potentially different reasons for engaging in these behaviours. For example, adolescents in SA may engage in more privacy preservation actions because they have more to hide from adults, while adolescents in the UK might be more open about their online risk experiences. Far more likely, however, this can be explained by the differences in strategies of parental mediation. As mentioned in point 10, parents in SA reported using more restrictive mediation strategies (control-based), which may lead adolescents in SA to resist this by engaging in more privacy preservation actions, particularly when engaging in more online risk behaviours in order to avoid further restrictions. Contrastingly, parents in the UK reported more active mediation strategies (discussion-based), which may account for adolescents in the UK being more transparent in their online activities when they encounter online risks due to the communication about these in the home. Although this warrants future study, higher overall parental mediation was associated with higher privacy preservation, indicating that the desire for autonomy and independence leads adolescents to take actions to preserve their privacy.

These findings show that the focus on parental mediation as the main means of reducing adolescent online risks is a simplified take on a complex issue. Instead of positioning

adolescents and parents on opposing sides of the issue of online safety, building on parent-child relationships to enhance trust and disclosure are key (Darling, 2007; Livingstone & Bober, 2006). Additionally, working to increase resilience and giving adolescents the tools to navigate online risks on their own is important (Wisniewski et al., 2015). This not only provides more open forms of communication considering the generational gap, but it also ensures that adolescents can make better decisions even when adults are not present to mediate their activities.

12. School approaches need to be strengthened as they have an important role to play in online safety efforts.

Apart from the home, schools have a major influence on adolescent perceptions and behaviours both through the school itself as well as through peer interactions that occur at school. As an environment where adolescents spend a considerable amount of time, schools have an important role to play in online safety. However, findings from the current study found that school personnel are least likely to be informed about cyberbullying incidents, particularly in SA. In fact, only 7.6% of adolescents in the UK and 2.6% in SA told any staff member at school about a negative online experience. In addition to this, the focus group interviews showed that teachers were unclear about specific policies at schools regarding cyberbullying or online risks and there was confusion about when or how teachers should intervene when incidents were reported. As such, if teachers are unclear about procedures, it is unlikely that other members of the school community including adolescents and parents would be clear about policies either. This reduces the likelihood that adolescents would approach teachers or be confident in any action being taken by the school. This reflects the need to communicate and enforce clear policies relating to online safety as well as more work in terms of education and prevention in schools. This is particularly the case since teachers may lack the knowledge and expertise to discuss online safety with students (Eden, Heiman & Olenik-Shemesh, 2013; Huang & Chou, 2013; De Lange & Von Solms, 2012).

Although there is room for improvement for schools in both countries to strengthen their approach to online safety, this is especially the case in SA. School mediation was higher in the UK compared to SA (according to adolescent reports) and adolescents in the UK reported more active mediation at school than SA adolescents. This suggests that UK schools are

currently taking steps to discuss and address this issue. UK schools are also twice as likely to have had workshops or talks about online safety in the past year compared to SA adolescents. One of the key barriers to implementation of online safety initiatives in SA links back point 4 in this section, where cyberbullying should not be treated as a separate phenomenon but, rather, as a means of addressing broader bullying and other violence-related issues in the school community. Teachers in the SA focus groups mentioned that cyberbullying was not a focus in their school due to more serious concerns relating to substance abuse and school violence. However, given that traditional bullying and cyberbullying are linked which relates to school violence, the association of cyberbullying with substance abuse and delinquency (Hinduja & Patchin, 2007), as well as its negative impact on school attachment, school social climate and school violence (Bauman, 2007), this issue warrants serious attention. Thus, apart from the serious negative effects on adolescent mental and physical well-being, this issue directly affects schools and links to broader safety concerns faced by schools. These links are important in placing the issue of online safety as a higher priority than it is currently. Given the current study results this is particularly necessary in SA, which is argued to be behind in terms of adopting online safety strategies and initiatives (De Lange & Von Solms, 2012).

9.3. KEY LAW AND POLICY DIFFERENCES BETWEEN SA AND THE UK

The key findings highlighted the perspectives of adolescents, parents and teachers and the main differences between SA and the UK. However, in addition to this, some key differences exist in law, policy and campaigns between the two countries which frame the two contexts, and are an important consideration in interpreting the study findings. They also link to the recommendations in the following chapter.

Although access to ICTs and range of online activities engaged in was high in both countries, SA adolescents may be experiencing more online risks due to internet access increasing more rapidly in this context than the policies and legislation relating to them. According to Livingstone (2009):

> *"In countries where internet diffusion is more recent, risk figures are higher, presumably because here especially, youth encounter online risk in advance of regulators and policymakers" (p. 163).*

In more developing contexts, where other social problems are more likely to be the focus, there may be less recognition of online risks among policy-makers, other stakeholders and children themselves. This implies that social, law enforcement and educational infrastructure are likely to vary considerably between developed and developing world contexts (Livingstone et al., 2016). This is important in relation to the findings as UK adolescents may be more aware of cyberbullying (and bullying) compared to SA adolescents due to more initiatives and campaigns and a higher focus on the issue, which impacts on adolescents' (and adults') understanding of the phenomenon. Apart from individuals potentially being more aware of the issue, which affects their perceptions and interpretation of events, there may also be important social differences such as school climate (Ortega et al., 2012).

Although cyberbullying is a global issue, it presents differently in different contexts due to these broader contextual differences and, while a detailed analysis of the different laws and policies pertaining to SA and the UK are beyond the scope of the thesis, some key pieces of legislation and policies are mentioned in the following sections to highlight important differences.

In terms of legal responses, various UK criminal laws have been extended to include cyberbullying, including Section 127(1)(a) of the Communications Act of 2003, the Protection from Harassment Act 1997, Section 1 of the malicious Communications Act 1988, the Communications Act of 2003, as well as the Public Order Act of 1986 (as amended, s4A) (Fenwick, 2015). Similar steps have been taken in SA, where charges of *crimen injuria*, assault, extortion, and defamation have been extended to include acts of cyberbullying (Badenhorst, 2011). However, approaches in SA are argued to be "fragmented and rely on various pieces of legislation, common-law definitions of criminal offences, and civil law remedies" (Badenhorst, 2011, p.7). According to Smit (2015), victims of cyberbullying in SA can apply for a protection order against the perpetrator in line with the Protection from Harassment Act 17 of 2011, however, none of the available options are preventative. Apart from cyberbullying, sexting has also received legal attention. As mentioned in the previous chapter, sexting can be prosecuted as child pornography under the Criminal Law (Sexual Offences and Related Matters) Amendment Act of 2007 as well as the Film and Publications Act 65 of 1996 in SA, as well as under the Sexual Offences Act (2003) in the UK.

Apart from criminal laws related to serious incidents of cyberbullying experienced by adolescents and adults, the UK also has laws in place relating to school policy implementation. Both maintained (Section 89 of the Education and Inspections Act, 2006) and independent UK schools (Independent School Standard Regulations, 2010) are required to implement anti-bullying strategies, which must be clearly communicated to staff, parents and pupils (Department for Education, 2014b). Resources and guidelines are provided to schools by the Department for Education for the drafting and implementation of policy. A clear focus is placed on prevention and intervention, as well as the importance of including the whole-school community in anti-bullying strategies. School accountability is also ensured in the revised 2012 Ofsted framework which includes 'behaviour and safety' as one of the key criteria for school inspection, where schools are required to demonstrate the impact of anti-bullying strategies (Childnet International, 2007; Department for Education, 2014a). The Education and Inspections Act (2006) further provides school staff with reasonable power to discipline pupils when bullying occurs outside of the school premises and provides defence for confiscation of items (including mobile phones) when these are used to cause disturbance or contravene anti-bullying policies (Department for Education, 2014b). The Children Act (1989) also indicates that bullying incidents need to be addressed as a child protection concern where there is suspected suffering or likelihood of suffering harm. Schools are encouraged to draw on external services to support victims and perpetrators.

In contrast, the South African Schools Act 84 of 1996 does not explicitly prohibit or refer to bullying or cyberbullying, but it does require schools to implement a code of conduct more generally (Laas & Boezaart, 2014; Smit, 2015). Other legislation such as the Children's Act 38 of 2005 affords children protection against maltreatment, abuse and neglect and upholds the principle of the 'best interests of the child', values which align with the need to address bullying but, again, the issue is not explicitly discussed (Laas & Boezaart, 2014). However, the Department of Basic Education (2010) has issued guidelines on e-safety in schools outlining key responsibilities of schools, teachers, students and parents. It specifically acknowledges aspects such as cyberbullying as well as contact and content risks as a concern. The document also outlines the key responsibilities of schools, teachers, students and parents in relation to e-safety, albeit rather broadly. A National School Safety Framework developed in 2012 also provides SA schools with guidelines and advice on how to implement anti-violence strategies, with a specific addendum relating to bullying and cyberbullying. Thus,

although guidelines and policies exist in SA, the main difference between the two countries may be in the implementation, monitoring and accountability of these policies and strategies. It is argued that, due to a lack of more specific formal guidelines and initiatives, schools are left to their own initiative in raising awareness on e-safety among the students they teach (De Lange & Von Solms, 2011). This means that few schools know how to approach the issue of online safety, how to integrate online safety into the curriculum, or to what extent they should involve parents in this regard (De Lange & Von Solms, 2011). This is a clear current challenge in SA schools, as some of these issues were raised among teachers in the focus group interviews in the current study.

While SA has many laws and policies in place which are similar to the UK, the discussion indicates that there is still little mention about issues of bullying and cyberbullying in formal documents and policy guidelines or explicit accountability measures. Considering that the current study showed how removed adults often were from adolescents' online behaviours and experiences, leaving adults to implement strategies with little formal guidance particularly with limited knowledge and confidence to address these issues means that initiatives in schools are unlikely to be effective. Further monitoring and accountability structures should be in place to ensure implementation of policies in all schools and to provide the necessary support where these policies are lacking.

9.4 TOWARDS A HOLISTIC APPROACH TO ONLINE SAFETY: THE STUDY FINDINGS AND THE BIO-ECOLOGICAL SYSTEMS THEORY

9.4.1 Balancing Risks and Opportunities

Although the current study discusses online risks, these cannot be acknowledged without also considering the opportunities ICTs provide to children and adolescents. One of the main opportunities mentioned throughout this study is the way identity exploration is facilitated online and how online spaces can be an important social tool and form of social support (Livingstone, Haddon, & Görzig, 2012; Mesch & Talmud, 2010). This is especially important for otherwise isolated individuals. Similarly, it was mentioned that some other behaviours such as sexting or some content risk exposure may reflect curiosity during this developmental

stage and, although some experiences do have very serious consequences, it is important to exercise caution in classifying all of these behaviours as inherently risky.

According to Livingstone, Haddon, and Görzig (2012), there is a positive correlation between opportunities and risks and that the more opportunities are encountered so too are the potential risks. Research has also shown that more knowledge about risks does not necessarily result in less risk behaviours (Livingstone, Haddon, & Görzig, 2012). Focusing on reducing risks through more restrictive mediation strategies such as limiting internet use or restricting various activities online also not only reduces opportunities associated with ICT use but also reduces opportunities to learn to handle online risks effectively. Therefore, the focus should be on strengthening resilience (Wisniewski et al., 2015) and enhancing skills and confidence in being able to take calculated risks while also understanding and being able to cope with the consequences of those risks (Livingstone, Haddon, & Görzig, 2012). More skills and awareness in knowing how to avoid and manage risks is important, as individuals will be given the tools to navigate the online environment even without the presence of an adult.

This is an important consideration in the conclusion and recommendations made based on this research. The current research acknowledges the importance of addressing online risks, but argues that a holistic approach between all of the various role-players is key in order to ensure that the benefits associated with ICTs are not undermined in the process.

9.4.2 Incorporating a whole-school community approach to online safety with support from government and policy

Taking into account the adapted Bio-ecological systems theory (Johnson & Puplampu, 2008) which includes an addition of the ecological Techno-Subsystem and acknowledges the presence of technology and its influences on children and their immediate environments (Johnson, 2010a, 2010b – for details see section 3.2.3), the studies included perspectives from adolescents and examined their two closest contexts (home and school) to gain a better understanding of online risks, cyberbullying as well as parental and school mediation. This

was done with the goal of highlighting individual behaviours within the context of home and schools, as well as acknowledging broader structures such as laws and policies, which impact on these environments. In sum, the theory posits that the Techno-system affects the individual through access and use of ICTs and the associated online experiences (opportunities and risks), which are influenced by parenting style, parental mediation strategies and parent-child communication in the home, as well as school mediation, school safety strategies and school policies relating to ICTs. The Exosystem shapes public awareness and perceptions relating to ICTs and plays a role in support and education, while the Macrosystem involves laws and policies relating to ICTs as well as media campaigns which affect social norms and perceptions (Byrne et al., 2014). The key study findings outlined in this chapter are important for parents, teachers, and professionals working in adolescent health, those who work in public policy as well as in terms of public awareness, and are important when planning intervention and prevention strategies related to online safety. Given that online safety initiatives involve numerous individuals and contexts within a child's immediate environment, the framework provided by the Bio-ecological systems theory was not only used to frame the study itself, but is also important in addressing the findings and their implications. This thesis argues for a holistic approach to online safety which is described here, while more specific recommendations applying to these aspects are presented in the recommendations made in Chapter 11.

It is clear from the current research that there is high access and use of ICTs among adolescents, which occurs in both the home and school contexts. Findings have shown how demand characteristics (the Person aspect of the PPCT model outlined by Bronfenbrenner, 2005 – for details see section 3.2.2) such as gender or age influence online behaviours and experiences. For example, gender differences varied in online risk behaviours and experiences between the two countries, but females had higher risk perception and reported higher parental mediation. The research also found that online risk behaviours increased with age of adolescents, while parental mediation decreased with age. These are important factors to consider as they determine which behaviours should be targeted, when they should be targeted, as well as informing the way in which online safety should be approached among adolescents. Although many online risk behaviours can be addressed more generally, being aware of the gender and age differences can assist in making the approaches more effective. In addition, it also stresses the importance of targeting younger and older age groups

differently. In each case, approaches should be structured around building resilience through enhancing skills and confidence in navigating the online environment and the opportunities and risks that go along with it. A focus on educating adolescents about benefits, risks and responsibilities of ICTs will assist them in taking ownership of their online experiences.

Apart from these individual characteristics and an understanding of the ways adolescents use and experience ICTs, the research showed that parents underestimated online risks of their children and overestimated the extent of parental mediation in the home. This stresses the importance of working with parents and educating and supporting them in understanding online behaviours more fully so that they can support adolescents' safer online practices more effectively. Better understanding and more open communication in the home are important and have been found to be a key protective factor for negative online experiences. In addition, this also builds trust and a positive parent-child relationship which encourages disclosure. Byrne et al. (2014) state that open communication between children and parents is key to online safety as not being able to communicate online risk experiences to parents leads parents to underestimate the online risks their children face. This is supported by Stattin and Kerr (2000) who argue that the most likely predictor of parents' knowledge of their child's online activities are not the extent of their behavioural control strategies but the open lines of communication between parents and children. Thus, parental mediation more broadly, as well as the type of parental mediation strategy employed in the home can impact on parent-child communication and can be viewed as a function of the parent-child relationship. This can act as a protective factor for potentially negative psychological, emotional and behavioural effects of these experiences since they then do not continue for extended periods of time and adolescents do not suffer in silence but are able to confide in and rely on trusted adults. The studies have also alluded to various peer effects, such as normalising various online behaviours (social injunctive norms) as well as peers being the main confidantes in cyberbullying experiences. Although these effects require further research, the findings suggest that peers are a valuable resource in strengthening support for victims as well as creating positive social norms in online contexts. This suggests that working with adolescents to equip them with the skills to navigate online environments, strengthening peer networks and support and instilling appropriate online social norms and 'netiquette', as well as working with parents to build on parent-child relationships, trust and disclosure as well as supporting effective parental mediation in the home are all important components in a holistic approach

to online safety at the individual and Microsystem (individual's most immediate environment) level.

The discussions with teachers in the focus group interviews as well as perspectives on the school environment gathered from adolescents showed that, although schools seem to be making some effort, there is more that can be done in teaching appropriate online behaviours and interactions and informing children about online safety. This is particularly the case in SA, where the issue of cyberbullying and online risks may not be perceived as a serious issue relative to other social problems faced. Thus, the link between online and offline issues and their associated behavioural effects which can influence the school climate need to be highlighted to ensure that cyberbullying and online risk taking are given the priority in policy and intervention required to mitigate their potentially serious negative effects. Since cyberbullying in the current research was strongly associated with traditional forms of bullying and considering the research associating these experiences with behavioural issues (e.g. substance abuse) and school violence (Bauman, 2007; Patchin & Hinduja, 2006), online experiences cannot be treated as low priority among the other serious issues schools face. Thus, as an additional Microsystem in adolescents' lives, schools should have the tools to protect adolescents against physical and emotional harm and to protect the rights of the adolescents they teach by ensuring a safe school environment (Smit, 2015).

Clear policies relating to ICTs, online risks and cyberbullying need to be established and implemented in schools. These policies need to be communicated to adolescents, parents and school personnel so that each role-player is familiar with school policy and guidelines of appropriate online behaviours as well as the steps in reporting and addressing issues. Although more work can be done in schools in both countries to support and educate adolescents and their parents as well as establishing and enforcing proactive school policies and improved communication and implementation of rules about ICTs at school, this is especially the case in SA schools. SA schools could benefit from more involvement in online safety initiatives given the high prevalence rates of online risks and cyberbullying experiences among adolescents. Apart from policies and implementing reporting systems to address the issue, prevention efforts should be included within the curriculum. Furthermore, considering that adolescents spend a large amount of their time in school, there is great

opportunity for more unified and cooperative responses between the home and school contexts and for school personnel and parents to work together in this regard. This interaction between the home and school represent the Mesosystem.

The values relating to online safety promoted at school should also be supported in the home to create consistent approaches to online safety efforts. One of the key opportunities currently being missed is the impact that collaboration between homes and schools can have on adolescent online experiences, since these are the two immediate environments and, thus, powerful contexts of adolescent socialisation (Perry, Kelder & Komro, 1993). This is especially important considering the various factors in the home and school context that have been highlighted in the current studies. Aspects such as low overall parental mediation, a lack of parental understanding of what their children are doing and experiencing online, a lack of school policies on the issue of cyberbullying in the schools (as reported by teachers in the focus groups), as well as a lack of understanding of procedures or even definitions relating to cyberbullying, means that much progress is needed to strengthen the approach to online safety. Thus, apart from working towards strengthening approaches in both contexts, collaboration in this regard is needed. Some teachers in the study expressed frustration about parents expecting them to deal with online issues that emerge and there was general lack of understanding about who was responsible to act when situations occur online and whether the concept of *in loco parentis* extends to online experiences even if they occur at home, which has also been discussed elsewhere (Neel & Ennis, 2012). As such, clear expectations need to be drawn up, with the understanding that schools by no means hold the sole responsibility in addressing online behaviours and experiences of adolescents. Clear policies communicated to all in the school community is also important in order to address some current confusion relating to roles in online safety. Gaps in school policy and school approaches to online safety in SA schools compared to the UK are also important, particularly given that adolescents in SA displayed less confidence in being able to handle online risks effectively as well as more fear of encountering online risks. Thus, in SA in particular, strengthening school policy and the approaches at home and at school is important. Thus, much can be done to integrate these two contexts in working together to promote online safety.

Intervention and prevention efforts in schools should further utilise resources available in the communities within which the schools are situated. This draws on the Exosystem and may include involvement and campaigns by police services or children's organisations working in the area, as well as mental health and support services, which can assist both victims and perpetrators in more serious cases. This clearly outlines the key role schools can play in coordinating approaches both internally in the school by educating parents and adolescents, as well as externally by creating a support structure with available resources and organisations within the community. In this way schools are an ideal entry point for violence prevention in all its forms as they not only have the potential to directly and indirectly impact the adolescents and parents and the home environment, but also the communities within which they are situated through work with external support services (Popovac & Leoschut, 2012). This means that they can coordinate approaches to promote positive social norms and should be supported in doing so.

At the Macro-level, government departments hold the key to situating the issue of online risks and cyberbullying as a priority, given its links to other forms of violence which not only have an impact on the individual but also on the school social climate. Thus, a focus should be placed on increasing public awareness and drawing up strategies and educational media campaigns to assist in supporting communities, schools and parents. Clear guidelines and support should be provided to schools not only in drawing up and implementing policies but also providing the resources required both within schools and in the communities. In addition to this, appropriate monitoring and accountability strategies need to be in place to ensure the implementation of policies and steps taken to address the issue. Government departments can also assist in promoting research in this area and integrating important online safety messages into the curriculum. Teachers and other school personnel should be educated and equipped to deal with issues relating to online risks and cyberbullying and its serious effects, particularly since behavioural problems or psychosomatic issues may assist in detection of serious incidents. This will ensure that potentially serious experiences are detected and intervened on appropriately and that the necessary support is given to mitigate any long-term effects to adolescents' well-being. Reviews of existing policies and laws, particularly related to their implementation need to be evaluated, with issues relating to online safety being explicitly discussed. These clear laws and policies will also inform technical service providers who

create social media, messaging and other platforms that adolescents engage in and guide them in implementing safety strategies.

Examining the research findings in relation to the Bio-ecological systems theory (Bronfenbrenner, 1979, 1994, 2005; Johnson & Puplampu, 2008) and the ways in which the different systems interact, highlights the opportunities where different contexts can work together to promote online safety. Since ICTs are integral in adolescents' lives and occur across the different systems, as outlined by Byrne et al. (2014), each of these aspects are important in understanding individual behaviours as well as the influences of parents and schools in this regard, who also require external support. Thus, it is important to acknowledge that changing individual behaviours cannot occur in isolation without the support and guidance of all of the major role-players across the different systems in order to have a more effective and integrated approach. This would not only impact individual behaviours, but would also promote a more positive online environment in general through influencing social norms. In addition to supporting individuals and their Microsystems, there is a need for government policy, education initiatives and child protection agencies and NGO's (e.g. Childline, Childnet, ThinkUKnow, Digizen) working in this area to come together to create a a more comprehensive and effective strategy to address online safety.

CHAPTER 10

STUDY LIMITATIONS AND FUTURE RESEARCH

10.1. STUDY LIMITATIONS

The strengths of the current research is in its focus on adolescent reports and parent perceptions to assess online behaviours, online risks, risk perception, cyberaggression and cyberbullying as well as parental mediation. The studies were conducted across the developmental stage of adolescence in two countries representing a developed and developing context. They also made use of a mixed methods design, which included both quantitative and qualitative methodology at various points to enhance the data that was collected. Adolescent data was also collected cross-sectionally and longitudinally. In addition, the initial focus groups provided insights that framed the subsequent parts of the rsearch and the questionnaire that was developed was piloted and evaluated through reliability and validity analyses. Despite these strengths, there are various limitations in the research which require consideration. These limitations are further reflected in the recommendations made for future research.

Firstly, although the studies examined a developed and developing country context, the generalisability of the data for this purpose is limited since only 5 schools in total took part in the research. As such, the findings cannot be generalised to either country and it is important to acknowledge this. Instead, the current research may provide some insights into the potential differences between a developed and developing country context with a sample of adolescents, but it does not claim that this is by any means an overall representation of the two countries, nor developed and developing countries more broadly. While the studes do provide an exploratory insight into some potential differences and flag important issues which are an important starting point, large-scale studies making use of more representative samples are needed to examine the issues further.

Secondly, although specific areas within each country were targeted and many schools in those areas approached, the schools that formed part of the research were those who elected to participate. Therefore, the schools were self-selecting and may represent schools that have

some prior interest in the topic and may already be schools where some work in this area is taking place. This is especially relevant considering that several schools that were approached to be part of the research, especially in SA, explicitly stated that they did not see this as a priority in their school and did not wish to give of their time to the research due to a focus on more important social problems faced in the school. Therefore, it is likely that the schools sampled affected the results to some extent and may represent a cohort of participants who are more aware of the issues due to school involvement. Although it is difficult to convince schools to participate in a study if they do not have prior interest or do not see the issue as a priority, government departments can do a lot to encourage school participation by bringing the issue to the forefront. This would provide a more realistic picture of online behaviours and experiences of adolescents. Further research should thus be conducted through partnership with government departments. In addition, further research should be conducted comparing urban-rural contexts as well as different school types (e.g. government funded/non-government funded, single sex/co-ed) as well as examining potential differences in online behaviours and experiences in relation to socio-economic status. Also important to note is that data collected on school mediation was based on adolescents' perceptions and their reports of whether school rules existed and the level of mediation relating to ICTs. Thus, the findings reflect the extent to which rules might be communicated rather than accurately establishing the existence of mediation strategies as there are likely to be variations between adolescents' perceptions of this in a single school. As such, rather than schools being the units of analysis in relation to establishing the level of school mediation, this was established through adolescent reports. Further research should include both adolescents' perceptions of school mediation as well as actual rules and mediation strategies in schools by talking to headteachers and examining school policy documents.

Thirdly, the adolescent and parent samples were compared more generally rather than adolescents and their parents being matched, which would have allowed for more detailed analyses. Paired samples were not possible due to not wanting to compromise a larger sample as well as confidentiality and anonymity concerns of participants during data collection. Although adolescents and parents in the larger sample were not matched, 67 adolescent-parent matched pairs are available (collected during the pilot phase of the study) and are retained for future analyses. Future research would benefit from matching adolescents and parents in a larger sample in order to examine some of the findings in more detail. In

addition, matched pairs of adolescents between the baseline and follow-up would have provided clearer insights rather than comparing the two groups more generally. While the longitudinal study was exploratory, future research should match adolescents across time points. Moreover, further potentially confounding aspects to changes in behaviours and perceptions across time (beyond only changes in parental and school mediation) should also be considered. For example, broader societal changes and changes in trends in online behaviours may also be important influences.

Finally, while the adolescent questionnaire was available both online and offline, the parent questionnaire was only available for completion online. Completing an online survey requires some prior technological skill and, therefore, the method of data collection may have excluded some parents who may have otherwise wanted to complete the survey. Thus, important insights may have been missed. Furthermore, the self-selective nature of the parent participants (compared to adolescents) means that parents who are already engaged or, at the very least, have some interest in the issue would have completed the survey and that others may have been less likely to do so. Considering that approximately a third of all parents who were invited to participate in the study completed the survey, it would be interesting to examine what underlying differences might exist between parents who did and did not complete the survey on aspects such as interest or engagement on the issue or parenting style, for example. Future research should, therefore, consider this limitation in selecting the survey administration procedure.

10.2 FUTURE RESEARCH

Apart from the study limitations noted in the previous section and the recommendations for future research associated with them, the study findings also prompt further study (which were beyond the scope of the current research question). These are outlined in the remainder of this chapter.

As noted in the previous section, although the current research focused mainly on government-funded (public) schools, future research should examine online behaviours and experiences across school types as there may be associated differences in ICT use and school

policy that may have implications on adolescent online behaviours and experiences. Future research should also examine online risk experiences and cyberbullying along with coping strategies and resilience of adolescents in order to better understand the effects of these online experiences. Public awareness relating to these issues should also be explored to determine the extent of knowledge (and possible misconceptions) about these concepts more broadly as well as adolescent, parent and teacher knowledge more specifically. Moreover, due to current debates relating to definitions of cyberbullying and different measures used across studies, the current study examined cyberaggression and participants' subjective labelling of experiences as cyberbullying. Although this offers important insights, more work towards agreement of definitions and measures will facilitate comparisons between different studies.

The current research examined three types of online risks based on previous research (Livingstone & Bober, 2005; Livingstone, Haddon & Görzig, 2012; Livingstone et al., 2013). Further research should be conducted in both countries to examine contact risks in more detail, including the motivations behind meeting online strangers as well as the nature of these experiences. It should also focus on how and why adolescents access risky online content and the psychological and behavioural effects of such content exposure as well as the extent of unintentional and intentional exposure to various types of online content. Links between the different types of online risks should also be explored as well as further associations between various online risk behaviours and cyberbullying. Moreover, motivations and pressure to engage in sexting also warrant future study as do the contexts within which sexting images or comments are exchanged. Apart from the three types of online risks considered in the current study, there may be additional risks adolescents encounter online. Qualitative studies may be beneficial in this regard to identify other potential online risks experienced by adolescents.

Future research should also examine peer influence and peer norms as contributing factors for various risk taking behaviours, online victimisation and perpetration. Studies should also focus on examining the role of bystanders in cyberbullying experiences, the reasons for the link between victimisation and perpetration in online spaces, as well as the behavioural predictors related to these experiences. The links between online and offline experiences also require further study, particularly how cyberbullying and traditional bullying progress from

one context to another. Moreover, determining whether the link between cyberbullying and traditional bullying occurs for specific behaviours only requires further exploration (e.g. does the experience of social exclusion offline link to social exclusion online and do offline threats link to experiences of online threats?). Apart from the links between experiences, the effects on the school environment should also be noted. Furthermore, motivations behind privacy preservation actions of adolescents in relation to online behaviours could also be explored in more detail.

The current studies included participants across the developmental stage of adolescence, however, it would be of interest to examine pre-adolescent children in the year prior to entering high school, as well as young adults after high school to provide further insights into developmental trajectories of online behaviours and experiences. These studies should be extended to other countries, particularly in Africa where there is limited research in this area. In addition, adults' online behaviours and experiences relating to some of the issues in the current study should also be examined since cyberbullying can also affect older individuals (D'cruz & Noronha, 2013). Further research on parental mediation should also be conducted, especially its implementation and effects, as well as aspects such as parental involvement, personality, and parental online behaviours. Finally, as mentioned in the Methodology chapter, the research also included an exploratory intervention, which included developing and holding workshops in SA in an effort to increase adolescent online risk perception. Further research on intervention strategies and their effectiveness should be the focus in order to inform online safety efforts.

CHAPTER 11

CONCLUSION AND RECOMMENDATIONS

11.1 CONCLUSION

The thesis examined online behaviours, online risks, risk perception, cyberaggression and cyberbullying as well as parental mediation among adolescents aged 12-18 years to examine their online activities and experiences at two different time frames (i.e. 'ever' and 'in the past 12 months'). Adolescents also reported on mediation strategies at home and at school to determine approaches to ICTs in these two central environments in adolescents' lives. Parents of the adolescents also reported on their perceptions of their children's online behaviours and experiences. Initial focus group interviews with adolescents, parents and teachers assisted in framing the key issues. Taken together, the studies explored individual, home and school factors relating to ICT use in two countries, which represented a developing and developed country context.

The research demonstrated that adolescents engaged in various online behaviours, with a focus on social interactions, which underscored the social nature of ICT use among adolescents. ICT use was similar in both countries, indicating adolescents' immersion into technology irrespective of context. However, adolescents in SA engaged in more online risks and were more likely to have experienced online victimisation than adolescents in the UK, which is argued to be as a result of ICT access and use increasing more rapidly in developing contexts compared to the laws and policies that guide them (Livingstone, 2009). More specifically, differences in social and educational infrastructure between developing and developed contexts is likely to influence online risk experiences and understanding of these issues (Livingstone et al., 2016). Adolescents reported on their online victimisation separately from their subjective experiences of cyberbullying. Considering that SA adolescents were more likely to report online victimisation, adolescents in the UK were more likely to label their experiences as cyberbullying in the cross-sectional study. This was also found for traditional bullying, and may reflect the differing level of priority given to these issues in the two countries by schools and government. This influences public awareness and understanding of the terms and, thus, reporting. The research also demonstrated that cyberbullying was not a separate phenomenon but formed part of traditional bullying

experiences for many, with a high proportion of online and offline experiences of bullying being linked. Thus, the issue of cyberbullying should be treated as a broader issue of school violence, particularly due to the serious psychological, emotional and behavioural repercussions associated with these experiences and its impact on the offline world (Bauman, 2007; Dempsey et al., 2009; Patchin & Hinduja, 2010a; Sourander et al., 2010; Van Geel, Vedder & Tanilon, 2014). Moreover, it highlighted the complexity of the issue since most adolescents who were online victims were also perpetrators and often witnessed cyberbullying in online spaces, indicating that these multiple roles should be the target of interventions.

The research further demonstrated that parents underestimated online risks and cyberaggression experienced by their children and overestimated the level of parental mediation in the home compared to adolescent reports. Thus, adults are largely removed from children's online experiences (Livingstone & Bober, 2006; Byrne et al, 2014), leaving children to navigate online spaces with very little guidance to protect them or enabling them to learn safer online strategies. The generational gap in knowledge and use of ICTs is thus a significant barrier to online safety. The research highlights the importance of including parents in online safety efforts though strengthening the parent-child bond, communication and building on trust and disclosure. The research also highlights the gap in current school policies and approaches to online safety between the two countries as well as broader government policy and laws.

ICTs are an integral part of adolescents' worlds which not only means that they are constantly connected but that they also face consistent choices relating to which programs they use and how they engage in them. The research underscores the importance of a holistic approach in tackling the issue of online risks and cyberbullying. The Bio-ecological systems theory (Bronfenbrenner, 1979, 1994, 2005), adapted to incorporate the Techno-subsystem that acknowledges the influence of ICTs on individuals and across different contexts (Johnson & Puplampu, 2008; Johnson 2010a, 2010b), was used to tie in the study findings and to discuss the importance of incorporating all the key role-players in online safety efforts. This includes: (i) educating, building resilience and enhancing skills of adolescents in handling online opportunities and risks effectively and making better choices, (ii) bridging

the generational gap to promote understanding of online behaviours and risks which will increase support and result in more effective strategies and more open dialogue trust and disclosure between parents and children, (iii) developing and implementing school policies with clear reporting mechanisms and support and communicating these policies clearly to the whole-school community, (iv) acknowledging the valuable role of schools in promoting positive social norms and 'netiquette' which not only fosters a positive school social climate but also has the capacity to directly and indirectly influence and educate adolescents, parents and the community, (v) creating collaboration between external services and schools such as police services, child rights organisations, NGO's as well as mental health and support services, (vi) the government providing clear guidelines and policies along with accountability and monitoring of policy implementation in schools as well as supporting schools in addressing issues relating to online safety, and (vii) ensuring that the issue of online safety is in the public domain through educational and media campaigns and dialogue to enhance public awareness. The need to balance opportunities and risks in approaches to online safety was acknowledged.

11.2 RECOMMENDATIONS

In line with the key points mentioned in the previous section, the following specific recommendations based on the study findings are presented for each of the major role-players in online safety efforts. The recommendations are in line with the systems relating to the Bio-ecological systems theory and are presented starting with recommendations aimed at the Macrosystem through to individual level recommendations aimed at adolescents themselves. The key recommendations are summarised in Figure 11.1.

11.2.1 Government and Public Campaigns (Macrosystem)

Government departments need to acknowledge the serious psychological, emotional and behavioural effects relating to online experiences and the effects this has on the school social climate and school attachment. In particular, the link between online and offline experiences is important, with half of adolescents in the current study experiencing some form of online or offline bullying in the past year. As such, cyberbullying should form part of broader safety concerns, issues of school violence as well as anti-bullying strategies. This is especially

important in SA given the high prevalence of violence in society in general as well as in schools. Viewing cyberbullying as a lower priority in relation to other school violence issues misses this important link and undermines the severe consequences experiences can have on individuals as well as schools. Current initiatives in online safety in developed contexts, such as those in Australia (e.g. 'Cyber Savvy', 'Stay Smart'), can prove useful for adaptation in the SA context.

Government departments hold the key to placing the issue of online safety as priority in the public domain. Increasing public awareness and drawing up strategies as well as educational media campaigns that can promote online safety to the public is important as these messages will assist in supporting communities, schools, parents and adolescents. This is especially needed due to the current confusion regarding what constitutes cyberbullying among teachers, parents and adolescents. Not only does this mean that prevalence rates in the current study (which are already high) might be understated, but it also highlights the importance of increasing public awareness to encourage more effective approaches to addressing the issue. In addition to this, current laws and policies relating to online safety should be communicated to the public as well as practical ways in which they can start to address this issue.

Clear frameworks and guidelines need to be provided to ensure policy development relating to online safety and ICT use at schools. At present, policies are clearer in the UK and, considering the high access and use of ICTs and higher engagement in online risks among adolescents in SA, it is important to implement clear policies in SA to address online safety concerns. Since SA is looking to integrate ICT use more broadly to enhance education and development, this cannot be done without acknowledging online safety and discussing online safety concerns explicitly in policy. Government departments, therefore, need to support schools in drawing up and implementing policies and providing the necessary resources and structures both within schools and in the community to support these efforts.

The main difference between UK and SA policy is that SA government policy is currently more general and does not explicitly discuss bullying or cyberbullying (e.g. Department of Basic Education Guidelines on e-safety). In addition, there is a lack of accountability and monitoring in relation to policy in SA. Apart from guiding policy development in schools,

government departments should monitor and put clear accountability measures in place. Schools should be able to demonstrate their anti-bullying policies and online and offline safety efforts.

Discussions need to take place on how online safety messages can be integrated into the curriculum. Given that online risk behaviours increased with age and particularly from early to middle adolescence, online safety messages should commence from primary school level and continue throughout high school. Although this is important in both countries, this is especially the case in SA where schools are often left to their own initiative in online safety efforts. Government departments are key in supporting schools in implementing positive messages, especially since cyberbullying has links to offline experiences and thus should be seen as part of school safety efforts more broadly.

School personnel need to be informed about online safety concerns as well as ICT use more broadly, particularly the activities and programs favoured by their students. More understanding of the behaviours adolescents engage in will also facilitate understanding of the potential online risks that they may encounter. This will empower teachers to integrate online safety messages into their lessons and will help to create more focused prevention efforts. Schools should also be equipped to handle online risk experiences and be able to provide support to victims and perpetrators through school counsellors and referral to other support structures in order to mitigate the potentially serious psychological, emotional and behavioural effects. Better understanding of online risks and cyberbullying by schools also plays an important role in early detection of serious incidents (e.g. depressive symptoms, anxiety, conduct problems, psychosomatic problems) so that timely interventions can occur. Suicide prevention is also key in this regard given the emotional effects expressed by adolescents in the current study. Therefore, school training in relation to online safety should be provided to schools as this will better equip teachers in understanding and identifying online risks and the consequences associated with them.

There should also be greater collaboration between government and the service providers who create platforms and programs popular among adolescents in terms of safety provisions. Clear laws and policies in this regard will guide safety strategy implementation on a

technological level. This is especially important as technology is constantly evolving. Government departments should guide schools to organisations working in the area as well as other resources that can assist schools. They should also ensure that there is adequate training of law enforcement to handle cases appropriately in line with current laws. Moreover, government should assist in promoting scientific research in this area (e.g. such as the current study), which can guide policy and intervention and prevention efforts.

11.2.2 Drawing on External Support Services (Exosystem)

Organisations and mental health and support services working on issues of online safety should work with schools and create partnerships with them as they can often provide training and workshops to schools, parents and adolescents, they can offer support to school personnel and can also assist victims and perpetrators when serious cases are reported. Further to this, schools should build relationships with police departments in the community to give talks and educate school personnel on proper ICT use and current challenges and laws. This will ensure that schools are aware of new developments. This information can be filtered back into policies and to the whole-school community, including parents and adolescents. This is important as technology is constantly developing and staying informed about technological advances allows for better implementation of online safety strategies. Networks between schools can also be created through sharing knowledge and ideas as well as building on prevention efforts through collaboration. Involvement of teacher organisations can also be effective in this regard.

11.2.3: Collaboration between Parents and Schools (Mesosystem)

A key opportunity is currently being missed in parents and schools collaborating on online safety efforts, as these two most immediate environments for children and adolescents are powerful in terms of socialisation and teaching positive values and appropriate online behaviours and interactions. Since factors within the home and school have been highlighted in the current study, a move to strengthen collaboration between these two contexts is important. The following section oulines recommendations in this regard.

School policies should be communicated to parents with a clear outline of the roles and responsibilities of the school and the home. Although schools are central in online safety, they do not hold the sole responsibility in this domain. Thus, clear policies and clear communication of policies are important to address current confusion in roles in online safety. This will ensure that school personnel and parents are aware of what rules exist about ICTs, what risks are encountered by adolescents, as well as what behaviours constitute cyberbullying.

Parents should recognise the importance of the issues and stand behind school policies relating to ICTs by ensuring that their children comply with them. Parents should also ensure that the key values promoted at school in relation to online safety are supported in the home context to create consistent approaches across the two contexts. Schools should disseminate information relating to online safety to parents in order to support and educate parents on the latest developments about technology and its effects on the school. This can occur through parent meetings and newsletters to keep the issue at the forefront. Parents should take responsibility to engage with online safety issues and discuss these issues with their children.

11.2.4: School Policy, Reporting and Support (Microsystem)

Schools have the responsibility to protect adolescents against physical and emotional harm, to protect the rights of the students they teach, and to ensure a safe school environment. Therefore, clear policies relating to ICTs, online risks and cyberbullying need to be established and implemented in schools as part of broader school safety efforts. Policies need to be enforced and implemented within the school given the serious effects relating to these experiences on individuals and the school climate, and all incidents of cyberbullying (and traditional bullying) should be taken seriously. Schools should also have clear reporting mechanisms and disciplinary measures in place to deal with those who contravene school policies. Individuals should be confident in reporting incidents, knowing that action will be taken and that they will be supported.

Policies must be communicated to adolescents, parents and school personnel to ensure that each role-player in online safety is aware of policies, consequences, reporting mechanisms and disciplinary measures. As mentioned, specific roles and responsibilities relating to the

school, parents and adolescents should also be outlined to avoid confusion about where roles and responsibilities lie. At present teachers expressed that they were unclear about policies, procedures and their roles. Thus, if teachers are unclear about them, it is likely that confusion also exists among parents and adolescents. Although more can be done in schools in both countries to establish proactive policies, implementation of rules and bringing about awareness of the issue, this is especially the case in SA schools considering the higher online risk behaviours among SA adolescents and the lower school rules reported by adolescents. Moreover, given that adolescents in SA engaged in similar online activities and had similar access to and use of technology as UK adolescents, it is especially important that policies are strengthened to promote safer online practices. Policies should also be reviewed and updated regularly to reflect changes in ICT use and these changes should be communicated to the whole-school community.

School personnel should receive training on school rules, procedures and reporting mechanisms as well as the support services in order to enhance confidence in addressing issues relating to online safety. This is in addition to educating school staff on the issues such as online programs adolescents use, issues relating to sexting, contact with online strangers as well as exposure to various content. In addition, understanding behaviours that encompass cyberbullying and the definitions of these terms, the links between cyberbullying and traditional bullying (i.e. although cyberbullying might occur at home its roots might be in school interactions), the consequences of these experiences as well as early warning signs of these encounters is important not only in prevention but also in facilitating detection and early intervention. Suicide prevention messages should form part of broader anti-bullying strategies. Greater awareness of these issues among school personnel is important given the very low reporting of incidents in schools, potentially reflecting low confidence in teacher reactions at present. Schools should also have resources in place to deal with incidents practically and also have the necessary emotional support structures in place. These should be offered to both the victims and perpetrators. Working with external organisations within the community is also important in this regard.

Schools should take action to discuss issues with adolescents, building online safety efforts into the current curriculum and utilising the available resources. School counsellors and teachers should work together to present discussions and prevention strategies to adolescents.

They should discuss the concepts of cyberbullying (and traditional bullying) so that these terms are understood. Adolescents should also be educated about the effects of these behaviours, especially since most victims of negative online interactions were also perpetrators. Schools should also work towards promoting positive use of technology and 'netiquette' that encompass the values of empathy and respect. Empowering witnesses of cyberbullying to act and report incidents is also important, especially since friends are often the key confidantes in online experiences. More confidence in the structures in place to facilitate reporting and more confidence in adult reactions will encourage adolescents to seek support so that they do not suffer in silence for extended periods of time, which exacerbates the potentially serious effects of these experiences.

Finally, online safety efforts should begin at primary school level, teaching children about the opportunities and risks of online media. This should continue throughout school and online safety messages should be extended as adolescent online behaviours and activities become more complex. Early education is important as younger adolescents are less likely to be equipped to cope with the risks they encounter at present. In SA especially, there is a current lack of talks and workshops relating to online safety (as such, an exploratory intervention was also undertaken as part of the current study but is not reported in the thesis).

11.2.5: Parental Awareness and Parent-Child Bonds (Microsystem)

Parents should educate themselves about the programs and online activities their children engage in as well as the potential risks associated with these programs in order to begin to bridge the generational gap in ICT knowledge. This will assist in creating a more realistic image of adolescent online behaviours among parents and an understanding of what behaviours require specific attention, since parents currently underestimate the risk behaviours of their children. Parents in SA were more likely to admit that they were unaware of their children's online activities and, thus, although parents in both countries underestimated online risk behaviours, this is particularly problematic in SA. Parents should be informed about online risks and the concept of cyberbullying and take responsibility to communicate with their children about these issues. They should be aware that they have an important role and responsibility to play in this regard. They should take initiative to seek out

support from external organisations and information relating to this issue in order to better support their children's online behaviours.

Parents should be made aware of the importance of mediation strategies and which strategies are more effective. During adolescence in particular, the importance of active mediation strategies that encourage openness, trust and disclosure should be fostered through positive parent-child bonds. Again, parents in SA should be especially supported given that some adolescents reported corporal punishment as a consequence of breaking the rules about ICTs at home. The effectiveness of active mediation should be promoted since a more positive parent-child bond will also enhance children's confidence in reporting incidents to parents and discussing potential problems with them. Furthermore, parents should establish appropriate values and expectations relating to online behaviours and positive online interactions in the home, with the understanding that they need to socialise their children into responsible digital citizens.

11.2.6: Enhancing Resilience and Skills of Adolescents (Individual level)

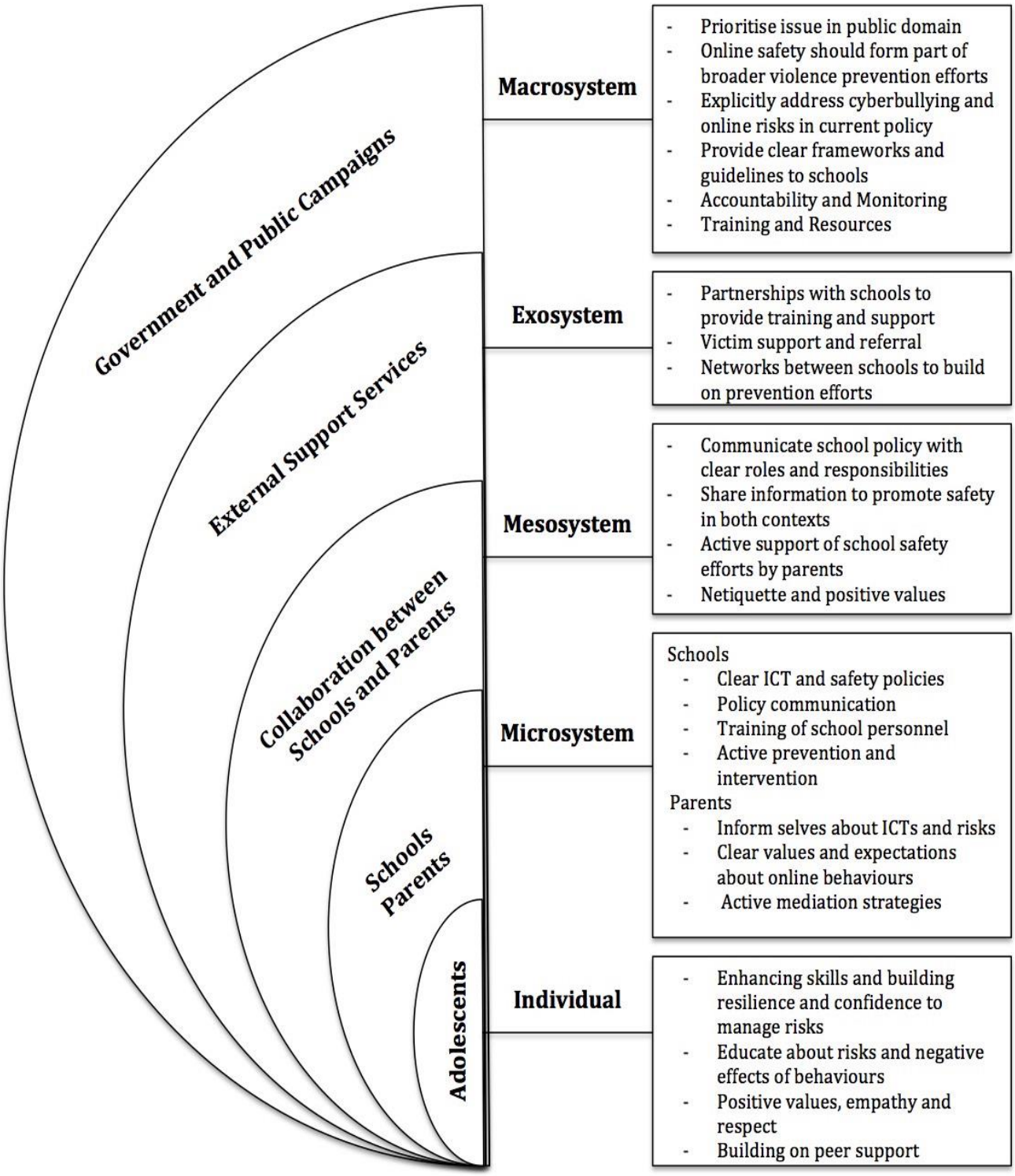
Intervention and prevention strategies should focus on building resilience and enhancing confidence and skills so that adolescents can manage the opportunities and risks in online spaces. Understanding risks, opportunities and responsibilities in online spaces will allow adolescents to navigate the online environment and take ownership of their online safety while being supported by their immediate environments as well as broader public campaigns and policies. Enhancing confidence and resilience is important in the SA context especially as adolescents in SA displayed more fear of online risks and less confidence in being able to handle the risks effectively. Strengthening coping and resilience should be the focus of online safety efforts.

Information relating to potential consequences of online behaviours should be discussed to ensure that adolescents are aware of the risks associated with various behaviours they might engage in. This also entails understanding the concept of cyberbullying and bullying more broadly as well as specific online risk experiences such as sexting, contact with online strangers as well as problematic online content. Adolescents should be made aware of anti-bullying policies at school and policies related to ICTs as well as their role in preventing

cyberbullying and bullying. Discussing 'netiquette' and individual responsibilities in online behaviours is also important in fostering appropriate social norms in online spaces and establishing a climate of empathy and respect. In addition, adolescents should be taught pro-social conflict resolution that apply to offline and online settings. This is an important skill that can prevent issues from escalating both online and offline, and can also reduce the potential for incidents to progress from one context to another. Practical skills such as using privacy and security settings, blocking and reporting should also be taught, as well as practicing caution in information disclosure online. Law enforcement, technological service providers as well as various organisations can assist in this regard.

Encouraging peer intervention and peer support is important, particularly since various online behaviours may be normative within peer groups. Moreover, peers are often the primary confidantes in cyberbullying experiences and, therefore, are important in providing advice and support to victims. This is further reason to educate and inform adolescents, not only in being able to cope with incidents themselves but to also be able to offer assistance and support to their peers. Responsibilities relating to not being a bystander to cyberbullying should also be a focus and adolescents should be encouraged to report incidents and to intervene in incidents by standing up for victims and not encouraging perpetrators.

Figure 11.1: Summary of Recommendations using the Bio-Ecological Systems Theory



This thesis outlined important findings relating to adolescent online behaviours and experiences as well as parental perceptions of those behaviours, and also explored the home and school settings in a developed and developing country. The findings that emerged can best be addressed through a holistic approach to online safety efforts, involving multiple role-players to ensure that children and adolescents can benefit from the social and educational opportunities afforded by ICTs while minimising the potential risks and their potentially negative short- and long-term effects on well-being. Higher priority on online safety and implementation of more appropriate and effective strategies is crucial, especially considering that access to and use of ICTs, and any potential negative effects associated with their use, are only likely to increase in prevalence and complexity as technology evolves.

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APPENDIX A

PREVALENCE OF CYBERAGGRESSION AND CYBERBULLYING

ADDITIONAL STUDIES SUMMARY TABLE

Study	Behaviour Measured	Country	Sample Size and Age Range	Time Frame	Prevalence Rate	
					Victim	Perpetrator
(Dehue, Bolman, & Völlink, 2008)	Cyberbullying	Netherlands	n = 1,211 Age not specified, but included final year primary and first year high school sample.	Semester	23%	16%
(Dempsey, Sulkowski, Nichols, & Storch, 2009)	Peer victimisation	USA	n = 1,648 11-16 years	Month	14%	-
(Erentaitė, Bergman, & Žukauskiene, 2012)	Cyberbullying	Lithuania	n = 1,667 15-19 years	Past few months	29.3%	-
(Goebert et al., 2011)	Cyberbullying	USA	n = 677 Age not specified, but sampled grades 9-12	Past year	56.1%	-
(Gradinger et al., 2012)	Cyberbullying	Austria	n = 1,461 10-15 years	Last 2 months	10.4%	6.9%
(Hinduja & Patchin, 2010b)	Cyberbullying	USA	n = 1,963 10-16 years	Past month	29.4%	21.8%
(Juvonen & Gross, 2008)	Cyberbullying[38]	USA	n = 1,454 12-17 years	Past year	72%	-
(Katzer, Fetchenhauer, & Belschak, 2009)	Cyberbullying	Germany	n = 1,700 Age not specified, but sampled grades 5-11.	Ever	39%	-
(Kowalski & Limber, 2007)	Cyberbullying	USA	n = 3,767 Age not specified, but sampled grades 6-8	Semester	11%	4%
(Li, 2006)	Cyberbullying	Canada	n = 264 Age not specified, but sampled grades 7-9.	Ever	25%	17%
(Li, 2008)	Cyberbullying	China and Canada	China n = 157 Age not specified, but sampled grade 7 Canada n = 197 12-17 years	Ever	China: 25% Canada: 33%	China: 15% Canada: 7%

[38] Although these researchers claim to have measured online bullying experiences, their method suggests that they in fact measured cyberaggression which may account for the exceptionally high prevalence rates found in this study.

(Patchin & Hinduja, 2006)	Cyberbullying	Multiple Countries (web based survey)	Under 18 years	Ever	29.4%	10.7%
(Slonje & Smith, 2008)	Cyberbullying	Sweden	n = 360 11-20 years	Semester	5.3%	10.3%
(Smith et al., 2008)	Cyberbullying	UK	n = 533 11-16 years	Semester	17.3%	12.4%
(Topçu, Erdur-Baker, & Capa-Aydin, 2008)	Cyberbullying	Turkey	n = 105 14-15 years	Ever	34.3%	35.2%
(Williams & Guerra, 2007)	Cyberbullying	USA	n = 1,519 Age not specified, but sampled grades 5, 8 and 11	Semester	-	9.4%
(Wolak, Mitchell, & Finkelhor, 2007b)	Online harassment	USA	n = 1,500 10-17 years	Year	9%	-
(Ybarra, Diener-West, & Leaf, 2007)	Internet harassment	USA	n = 1,588 10-15 years	Year	33%	-
(Ybarra & Mitchell, 2008)	Internet harassment	USA	n = 1,500 10-17 years	Year	8.6%	_

APPENDIX B

FOCUS GROUP SCHEDULES

Focus Group Schedule 1: Adolescents

PART A: INTRODUCTION (Total: 5 minutes)
1. Introduce myself -Name, where I'm from, what I'm studying
2. Explain the study - Internet and mobile phone experiences of adolescents and their parents - Longitudinal -Comparison between the UK and SA
3. Explain purpose of focus group and how it will work - Your choice to participate or not. This discussion will last 1 hour. - Focus group is a kind of group discussion. Since **I don't know much about teenager's activities** on the internet and the way they use mobile phones, this discussion is about **you teaching me** and informing me about what happens online and what teenager's thoughts are about issues relating to the internet and mobile phones. So it is an **informal discussion, more of a chat, to share ideas and thoughts and experiences so I can gain a better understanding.** - There are **no right or wrong answers** and you may not agree with what someone else says and you should feel free to express different views. You're not only talking to me but **also to each other**. This discussion is also a sort of debate about these different issues and so we can get **different views** on them. - You won't be asked to share anything personal about yourself that you don't want to talk about. How much you share or don't share is completely up to you. So I'm **not going to pick on anyone** for answers or anything like that. But I do want you **all to participate.** - I have some questions written down here about things I'm wondering about but please feel free to talk about and **bring in other issues that you think are important** for me to know. **Not an expert**. - This is the **first part of my research** and the information I get will be used to create a set of questions that I will ask teenagers in the UK and teenagers in SA at a later stage, which you will be a part of as well.
4. Explain the way data will be used - I'm going to ask your permission to **record** the discussion we have today. This is just so that I don't forget anything important that you tell me. **Nobody else will listen** to the recording but me. Once the study is done I will **delete** the recording so nobody else will be able to use it. - Your **names will not be recorded** so even though I can see all of you here now, when I use

the information I will not know who said what. When I use the information you give me for my research **I will use made-up names** and I will not reveal the name of your school, so in the study you will be **completely anonymous**.

Do you have any questions about the focus group process at this stage before we start?

****ASK AGES****

PART B: ONLINE BEHAVIOURS (Total: 10 minutes)
(So let's start by talking about what programs and activities you or teenagers your age do on the Internet and mobile phones...)

1. Activity 1 (length 5 minutes)
(Easy activity to build rapport and get everyone involved)

On 2 separate posters, one with a heading 'Internet' and the other with a heading 'Mobile phones' compile a list with the help of the group of all the activities and programs they/teenagers their age engage in online as well as on their phones. Treat each list as separate even if the same activity or program is used by both. Start by saying the following to get the discussion going: "Ok, I'll start. I'm going to write down 'Facebook' on the Internet poster, do most of you use Facebook? ... (Yes/No). Ok, what else can we add on the posters?"

Tools:
- 2x posters
- Felt pens
- Prestick/Pins to hold up posters for all to see

2. Questions relating to lists made in Activity 1 (length: 5 minutes)
(Easy questions to get discussions going and for participants to become interactive with the researcher and among themselves in order for there to be more involvement in later important sections)

1. That's quite a few activities. So **how much time**, would you say, do you or teenagers your age spend on the internet and on mobile phones per day/per week

2. **Where** do teenagers use the internet most at home, school friend's house in public?

5. **How important is the internet** in your life? How would you feel if you couldn't be online for 2 or 3 full days?

PART C: ONLINE RISKS (Total: 10 minutes)
(So going back to the lists we made...)

1. Questions relating to lists made in Activity 1

(Getting into more serious discussion here, ensure that views of all participants are obtained and that participation is encouraged by positive body language and positive feedback to comments and points made; **Tap into <u>knowledge</u> of risks, <u>fear</u> of risks, <u>controllability</u> of risks in this section**)

1. Do you have **any concerns** when you use any of these programs?/**Does anything worry you**?

2. Are there **any dangers** for people your age in being involved in or using any of these programs or are they pretty safe? (Make list if several risks are mentioned)

Additional questions: If yes, what are they? If no, why not?
Do you all agree with that? Who disagrees?
Ask group to elaborate on specific risks mentioned.

3. Do teenagers your age **take any risks** when they use these programs or are involved in these activities? (What are they?/Why do you think they're safe?)

4. Can teenagers **control or prevent any of these risks** or is it just something that happens?

PART D: CYBERBULLYING (Total: 20 minutes)

1. Activity 2 in smaller groups (Length: 5 minutes)

Divide the focus group participants into 4 smaller groups. They should shift their chairs around so that each group is separated from the others. Give each group a sheet of paper and pens and ask them to discuss what the term 'Cyberbullying' means. The task is to discuss it in the group and to write a short definition of 2 or 3 sentences. They have 5 minutes to discuss this in the group and to write down the definition on the piece of paper.

"Think about how you would explain the word to a friend of yours who had no idea what the word means. But also think about examples of what it can include, how it occurs, where it occurs, and who is involved in it..."

Tools:

- A4 sheets of paper x4
- Pens
- Poster

Have questions written down on a poster that can be out up so that groups can use it as a reference point for their discussion

**** HALFWAY MARK: 30 MINUTE CHECK****

2. Discussion of definitions from Activity 2 (Length: 5 minutes)

One person in each group is asked to read out the definition that their group came up with. Once all the definitions are read, ask the groups to comment on each other's definitions. Do this for all questions, ask different person to read out group answers each time. **Go through worksheet**.

Question: Is there **something you don't agree** with that any of the other groups wrote or anything that you think is **especially important**?/ Ask question about a particular aspect any

of the groups mentioned. “That part was interesting, can you tell me a little bit more about why you added that in your definition?”

3. Discussion about cyberbullying (Length: 10 minutes)

Get points from each group:

1. Is cyberbullying a big problem for teenagers in this country? **Is it quite common**? Is it serious?

2. Do you **witness** Cyberbullying when you engage in any of the media/programs we discussed earlier?

3. Let’s say you were being cyberbullied, **what would you do** in that situation? How would you react? Would you tell anyone? Who?

4. You don’t have to share any personal stories if you don’t want to, but have any of you **experienced** it or know someone who experienced it? How did it happen?

5. Does it have any impact on anyone? What **effect** can it have on someone if they are cyberbullied?

-Take in worksheets
-Ask to move chairs

PART E: PARENTAL MEDIATION (Total: 15 minutes)

Now I’m going to ask you some questions that relate to differences between adults and teenagers and their use of the internet...

1. Would you say your **parents know how to use all the technology** and programs we listed before?

2. Do teenagers your age usually have to **follow any rules** about using the internet or mobile phones at home? Are parents quite strict usually? **Consequences**?

3. Do you think parents **know what teenagers actually do** online?

4. Do parents do anything to **check up on what you do** on the internet? How? Why do they do that? Or Why don’t they check up on you?

5. How do you **feel** when your parents check up on you?

6. Is there anything teenagers do to try **to avoid parents knowing** what they do online to keep it a secret? What? Why do they do that?

7. We spoke about rules in the home. What about at **school**? Are the rules different? How? **Consequences**?

8. Have your parents and your schools **ever spoken to you about the dangers** of the internet or use of mobile phones? How was that? What did you discuss?

PART F: CONCLUSION (Total: 2 minutes)

That was a really great discussion and you all raised some very interesting points. Thank you for that. Before we end...

Question: Is there anything that is important to talk about still that you think we missed out or anything else you thought of since that you'd like to add to anything we talked about?

Do you have any questions for me about anything we discussed today or about the research?

Thank you all very much for participating in this focus group today. This information is really valuable. If you have any questions you still want to ask me please stay behind and feel free to do so. Otherwise you are free to go. And thanks again.

Focus Group Length: 62 minutes

Focus Group Schedule 2: Parents

PART A: INTRODUCTION (Total: 10 minutes)
1. Introduce myself -Name, where I'm from, what I'm studying
2. Explain the study - Internet and mobile phone experiences of adolescents and their parents - Longitudinal -Comparison between the UK and SA
3. Explain purpose of focus group and how it will work - The purpose of the focus group discussion is to bring together parents of adolescents and talk about, firstly, what parents' experiences are of the internet and, secondly, to talk about parental concerns about adolescents on the internet. I am starting my research and want to get some ideas about parents' thoughts relating to the internet and adults' experiences and perceptions. - I am doing this process in the UK and in SA. - This is the first part of my research and the information will be used to create a set of questions that I will ask parents in the UK and parents in SA at a later stage, which you will be a part of as well. - The focus group discussion will last an hour and 30 minutes.
4. Explain the way data will be used - I'm going to ask your permission to record the discussion we have today. This is just so that I don't forget anything important that we discuss. Nobody else will listen to the recording but me and I'm going to keep the recording safe on my computer in a secure folder that nobody else can access. Once the study is completed I will delete the recording so nobody else will be able to use it. - Your names will not be recorded and when I use the information I will use made-up names and I will not reveal the name of the school your children go to, so in the study you will be completely anonymous. - If there is anyone at this stage who has changed their mind and does not want to be a part of this process, you are free to leave and there won't be any consequences or questions should you wish to do so. Do you have any questions about the focus group process at this stage before we start?

PART B: ONLINE BEHAVIOURS AND ONLINE RISKS (Total: 30 minutes)
(So let's start by talking about what behaviours parents engage in online and on mobile phones...)

PARENTS OWN EXPERIENCES

1. Activity 1 (length: 5 minutes)

On 2 separate posters, one with a heading 'Internet' and the other with a heading 'Mobile phones' compile a list with the help of the parents of all the activities and programs THEY/parents they know engage in online as well as on their phones. Treat each list as separate even if the same activity or program is used by both.

Tools:
- 2x Posters
- Felt pens (different colours)
- Prestick/pins to hold up posters

Follow-up questions to Activity 1

1. How much time do parents spend on these activities per day/per week? (Not work related)

2. Would you consider yourselves proficient in technology? What about compared to your children?

2. Online risks (length: 10 minutes)
(Based on the list of activities parents engage in, lead into discussion about online risks...)

1. Do you have any concerns when you use any of these programs?/Does anything worry you about using any of these programs? What?

2. What kind of risks, if any, do adults in general tend to take when using any of these activities? What can happen?

3. Are there any differences in risks between the internet and mobile phones?

PARENTS PERCEPTIONS OF CHILDREN

3. Activity 1 in relation to adolescents (length: 5 minutes)

Taking a different colour felt pen, ask the parents to look at the lists they compiled for online activities and to add or cross out ones that they think their children engage in or don't engage in.

Questions:

1. How much time would you say your children spend on these activities per day or per week?/ In your home, who would you say uses the internet most?

2. Where do you think children access the internet most? Home? School? Public place? Friends?

3. Do your children have access to the internet on their mobile phones?

4. Online risks for children (length: 10 minutes)

1. Do you have any concerns about your children engaging in any of these online activities? Why?

2. What kind of risks, if any, do children tend to take when using any of these activities? What can happen?

3. Have you spoken to your children about your concerns or any risks on the internet? How was that?

PART C: CYBERBULLYING (Total: 25 minutes)
(I'd like us to talk about one particular risk of the internet now...)

1. Definition (length: 5 minutes)

I would like to know how parents define the term 'Cyberbullying'. Think about it for a minute, what is it?

Discuss this with the group and then add in additional questions:

- Can you think of any examples of behaviours that might be considered to be cyberbullying?
- How does it occur?
- Where does it occur?
- Who is involved in it usually?

2. Cyberbullying as an issue for adults (length: 10 minutes)

1. Do you think cyberbullying is an issue among adults in the UK?

2. Have you/do you know any adult who has had experience of cyberbullying?/ If not cyberbullying, other kinds of negative online behaviours (Cyberstalking, harassment)?

3. Have you witnessed cyberbullying among adults in any of your online activities? What? How? Who? How did you feel?

4. Do you think this is a serious issue among adults? Why or why not?

3. Cyberbullying as an issue for children (length: 10 minutes)
(Start with previous question for adults and ask about children for discussion continuity.)

1. Is cyberbullying a serious issue among children in the UK? Why or why not? What are your thoughts about this particular issue in your country?

2. Do you think your children have ever been involved in cyberbullying? Do you worry about your child being cyberbullied?/Have any of your children been cyberbullied to your knowledge? Do you think your child has witnessed cyberbullying?

3. How does it occur among children usually? Who is the perpetrator? Which media?

4. Do you think your child would be able to handle the situation effectively if they experienced cyberbullied? What do you think they would do?

5. In your opinion, what impact can cyberbullying have on children?

PART D: PARENTAL MEDIATION (Total: 15 minutes)
(Now I'm going to ask you some questions about the rules that parents try to put into place and the difficulties they face in monitoring their child's online behaviour...)

Let's start with comparing skills of parents and children...

1. Who would you say is the expert in technology in your household?

2. Would you say you know how to use all or most of the programs your children use?

3. Would you say you have a pretty good idea of what your children do online or not really?

3. Do you have any rules in your home regarding internet and mobile phone use? Tell us about them...

4. Are there consequences for breaking these rules? What are they?

5. Do you think parents in the UK find it easy to implement rules about the internet or do they struggle in some ways? How? Why?

6. Do you take any actions to check up on your child's online activities? What? Why or why not?

7. Do children resist in any way? How? Why?

8. To your knowledge, are there any rules at your child's school regarding the use of the internet and mobile phones? What are they? (Do you implement any of these in the home?)

PART E: CONCLUSION (Total: 5 minutes)

That was a really great discussion and you all raised some very interesting points. I feel I have a much better understanding of parents' views. Thank you for that. Before we end...

Question: Is there anything that is important to talk about still that you think we missed out or anything else you thought of since that you'd like to add to anything we talked about?

Do you have any questions for me about anything we discussed today or about the research? **Thank you all very much for participating in this focus group today. This information is really valuable. If you have any questions you still want to ask me or if you'd like my contact details please stay behind and feel free to do so. Otherwise you are free to go. And thanks again.**
Focus Group Length: 85 minutes

Focus Group Schedule 3: Teachers

PART A: INTRODUCTION (Total: 5 minutes)
1. Introduce myself -Name, where I'm from, what I'm studying
2. Explain the study - Internet and mobile phone experiences of adolescents and their parents - Longitudinal -Comparison between the UK and SA
3. Explain purpose of focus group and how it will work - The purpose of the focus group discussion is to get **teachers' perspectives** on cyberbullying and online risk since adolescents spend a great deal of time in the school environment and teachers often have unique insights as a result of this. The discussion is also about getting **teachers' opinions** on parental mediation, the **rules and regulations** that are in place in the school for internet activity, as well as the differences that may exist between mediation in these two settings. The focus group is also a chance to hear **teachers' concerns about adolescent online activity** and their ideas about what can be done to mitigate the risks involved. - I am doing this process in the UK and in SA. - This is the first part of my research and the information will be used to create a set of questionnaires for adolescents and parents to be used at a later stage of the research. - The focus group discussion will last 1 hour.
4. Explain the way data will be used - I'm going to ask your permission to **record** the discussion we have today. This is just so that I don't forget anything important that we discuss. Nobody else will listen to the recording but me and I'm going to keep the recording safe on my computer in a secure folder that nobody else can access. Once the study is completed I will **delete the recording** so nobody else will be able to use it. - Your names will not be recorded and when I use the information I will use **fake names** and I will not reveal the name of your **school**, so in the study you will be completely anonymous. **Do you have any questions about the focus group process at this stage before we start?**

PART B: ONLINE BEHAVIOURS AND ONLINE RISKS (Total: 10 minutes)
(So let's start by talking about what behaviours your students are engaging in online or are likely to be engaging in online to your knowledge...)

1. Activity 1 (length: 5 minutes)

On 2 separate posters, one with a heading 'Internet' and the other with a heading 'Mobile phones' compile a list with the help of the teachers of all the activities and programs their students use. Treat each list as separate even if the same activity or program is used by both.

Questions:

1. How much **time** would you say your students spend on these activities per day or per week if you had to estimate?

2. **Where** do you think children access the internet most? Home? School? Public place? Friends?

3. How **important** is the internet in teenager's lives?

4. Would you say you **know how to use** all or most of the programs your students use online? Explain.

Tools:

- 2x Posters
- Felt pens
- Prestick/pins to hold up posters

2. Online risks (length: 5 minutes)
(Based on the list of activities, lead into discussion about online risks...)

1. Do you think children **take any risks** when engaging in any of the activities you mentioned on the list? What are the main risks? Discuss.

2. Has the school addressed some of these risks with students?

PART C: CYBERBULLYING (Total: 20 minutes)
(So let me ask you about a specific online risk...)

1. Definition (length: 5 minutes)

No set definition of what constitutes cyberbullying...

From your experience or what you know of cyberbullying, how would you define the term 'Cyberbullying'? What would you say it is?

- Can you think of any **examples of behaviours** that might be considered to be cyberbullying?
- **How** does it occur?
- **Where** does it occur? (Which media)
- **Who is involved** in it usually?

2. Cyberbullying as an issue (length: 15 minutes)

1. Would you consider cyberbullying to be a **serious issue among children in this country**? Why or why not? What are your thoughts about this issue in the country?

2. What about **your school**? How does it affect your students, if at all?

3. Have any of your students been cyberbullied?/ Have there been **incidents** of cyberbullying brought to your attention? How did this happen?

4. Do you think children in this country are **equipped to deal** with this situation effectively if they experienced it? What actions can they take?

5. What about children in this school? Are there **procedures** in place for dealing with incidents of cyberbullying? How might you handle a situation if it occurred?

6. Have there been any **talks** with students in your school relating to cyberbullying in particular?

7. **What can be done** to improve the situation in this country? And your school?

8. In your opinion, what **impact** can cyberbullying have on children?

**** 35 MINUTE MARK CHECK****

PART D: PARENTAL MEDIATION (Total: 25 minutes)
I'm going to ask you some questions about the differences between adults and teenagers in terms of internet use and mediation in the home and school settings...

1. Firstly, if you compared one of your students' technological skills with their parent, who would you say is the **expert** most likely to be? Why?

2. From your perspective, do you think parents in this country are aware of what their children do online?

3. At your school, are there any **rules and regulations** relating to the use of any online activities? What?

4. So we spoke about the rules present in the school context. Can you tell me, are there **consequences** for breaking these rules? What are they? What is the **implementation** of these rules like for you? Do students tend to **resist**?

5. Do you think parents in this country have **similar rules in the home**? Do you think they are easy to implement in the home? Do they struggle in some ways? How?

6. How do **rules differ between the home and school** for adolescents? How, if at all, does this **impact on you**?

7. How can parents and school personnel **work together to create safer online environments**? What would you change about what parents are doing now in order to make your job easier?

PART E: CONCLUSION (Total: 2 minutes)

That was a really great discussion and you all raised some very interesting points. I feel I have a much better understanding of teachers' views. Thank you for that. Before we end...

Question: Is there anything that is important to talk about still that you think we missed out or anything else you thought of since that you'd like to add to anything we talked about?

Do you have any questions for me about anything we discussed today or about the research?

Thank you all very much for participating in this focus group today. This information is really valuable. If you have any questions you still want to ask me or if you'd like my contact details please stay behind and feel free to do so. Otherwise you are free to go. And thanks again.

Focus Group Length: 62 minutes

APPENDIX C

FOCUS GROUP PARTICIPANT INFORMATION SHEET

Study Title – *Safe to Surf? Behaviours and perceptions of adolescents and their parents regarding cyberbullying, online risk and parental mediation: A longitudinal cross-cultural comparison between the United Kingdom and South Africa*

What is the purpose of this study?
The overall research study looks at the nature of online behaviours of teenagers and their parents in general and, more specifically, their experiences of online risks and cyberbullying. The study also examines what people think about online risks and cyberbullying, as well as investigating monitoring and supervision of internet use in the home and at school. This information will be used in order to highlight the potential differences in behaviours, experiences and perceptions between different age groups as well as differences over time and between individuals in two countries (the United Kingdom and South Africa).

Why is the study important?
There has been a surge in the use of information and communication technologies over the past few decades, but research in the field is still in its early stages. Despite the countless benefits that technology can provide such as allowing for a quick and easy increase in knowledge, technology also has the potential to expose individuals to a number of online risks and online aggressions that can have detrimental consequences for both children and adults. This study adds to the knowledge in the field by highlighting the differences in online behaviours, experiences and perceptions of teenagers and adults across time and between countries. This information can be used to inform strategies to support a safer online environment.

Why have I been chosen?
For the first stage of the research, the researcher is doing focus group interviews with teenagers, parents and teachers in the UK and in South Africa. The purpose of these interviews is to explore the use of online media, thoughts around online risks, definitions of cyberbullying and parental supervision in two countries. Your school was selected to form part of this exploratory study in this country. The information from the focus groups will be used to create a set of questions for the next stage of the research and is a way for the researcher to make sure that the questionnaire that is created is relevant to teenagers and adults in each country.

What is asked of me?
If you agree to be a part of this stage of the research, you will be asked to attend a focus group interview, which consists of a group of between 8-10 participants. The researcher will facilitate a discussion in the group and ask questions relating to behaviours and perceptions of the internet, including cyberbullying, online risks and parental supervision. Focus groups are separate for adolescents, parents and teachers. The focus groups will take no longer than an hour and 30 minutes

and will be scheduled at a convenient time for you and your school. You will be part of a group discussion where you can share your opinions, views and perceptions on issues relating to the internet. You won't be asked to share anything personal about yourself that you don't want to talk about. How much you share or don't share is completely up to you. All participation is voluntary and you may withdraw from the study at any point without any repercussions whatsoever.

What will happen to my data?

The focus group discussion will be audio recorded with your permission and this will ensure that the researcher does not miss any valuable information by needing to take extensive notes during the discussion. Any information that you provide during the discussion is strictly confidential and only the researcher and her supervisors will have access to the data. Information that you provide cannot be traced back to you and the information will be stored in a password-protected computer database. Points you make during the focus group discussion may be quoted directly in the research report but this will be done anonymously. The researcher may identify your gender, age and the country you live in for comparison purposes in the report, but your name, school, class or any other identifying information will not be used. While your personal responses will not be traced back to you individually, the general results of the study will be made available to the school and to individuals on request once the data has been analysed. In the event of withdrawal from the focus group discussion, data already collected will be retained for use in the research. This is because it is impossible to erase your responses since the audio recording does not identify you. At the end of the study the audio recording will be deleted permanently but the transcripts may be kept by the researcher. In consenting to this research you agree that the data may be kept for future study.

What will happen to the results of the data I provide?

This research will form a PhD thesis and the results of the study will be published in academic journals. It will also be disseminated at research seminars and relevant meetings and conferences in an effort to expand knowledge in this research field and to create awareness, social support and intervention strategies in relation to the important aspects that emerge from the study. If you would like a copy of the report upon completion of the study, please let the researcher know.

What are the risks and benefits of being part of the study?

The benefit of taking part is that you are involved in an important process of sharing ideas, concerns and opinions with others on an issue that is currently being debated globally and that is receiving more attention. Things you mention and share in the debate will be used directly to inform a large-scale survey in the UK and South Africa in order to compare teenagers and adults in two countries and to highlight the potential differences in behaviours, perceptions and approaches between them. The data from the survey along with your discussions in the focus groups will be used to recommend strategies to create safer online environments. There are no known risks to participating in the focus groups, either physically, psychologically, socially or emotionally. However, should the study tap into sensitive issues and become distressing to you in any way or you just need more information about a particular issue, the researcher will refer you to appropriate support and information services as needed.

Who is organising this study?
This research is organised by the University of Buckingham, Psychology Department.

Who has reviewed this study?
The study has been approved by The University of Buckingham School of Science Ethical Committee in accordance with local regulations. The researcher has also undergone a clearance allowing her to conduct research with young people in the school setting in accordance with government regulations.

Contact for further information
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APPENDIX D

FOCUS GROUP PARENTAL CONSENT FORM

Dear Parent,

Your child is invited to take part in a focus group discussion to share their ideas, perceptions and behaviours relating to the use of internet and mobile phone technology. The researcher is undertaking this study as part of her PhD in Psychology degree and the study is being conducted in both South Africa and the United Kingdom. Please read the attached information sheet which describes the study in more detail and fill in the form below indicating whether you give permission for your child to take part in the study or not. Should you require any further information, please do not hesitate to contact the researcher (contact details are provided in the information sheet).

To be completed by the parent (please tick):

I give my child permission to take part in the study ☐

I do NOT give my child permission to take part in the study ☐

Child's name: _____

Parent's name: _____

Date: _____

Signature: _____

APPENDIX E

FOCUS GROUP PARTICIPANT ASSENT FORM

Behaviours and perceptions of adolescents and their parents regarding cyberbullying, online risk and parental mediation: A longitudinal cross-cultural comparison between the United Kingdom and South Africa

Focus Group Participant Assent Form

The purpose of the research study was explained to me and I understand my role in the research. I am aware of how the data I provide will be used in the study. I also understand that my participation is voluntary and that I may choose, at any point, not to participate in the focus group any longer without any consequences to me.

I have decided to be a part of this study and give the researcher permission to audio record the discussion.

Name: _____

Date:_____

Signature: _____

APPENDIX F

CROSS-SECTIONAL STUDY ADOLESCENT QUESTIONNAIRE

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

1. Welcome!

You have chosen to be part of a study looking at internet behaviours and experiences of teenagers in the UK and South Africa. This research is important because it helps us understand the way teenagers your age use the internet, some of your experiences on the internet and also asks about some of your views and opinions. The answers you provide are very valuable because there hasn't been enough research on this and the information can be used to make the internet and your experiences on the internet safer.

Please answer the questions on all of the survey pages and remember that all your answers are completely anonymous and confidential. Neither your parents, teachers, nor anyone else will have access to your individual responses. You do not need to answer any questions that you are uncomfortable with and may stop the survey at any time. Your participation in the study is voluntary.

1

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

2. Demographic Information

Thank you for choosing to complete the survey! This first section of the survey ask a little bit about you. Please answer all the questions by ticking the option that applies to you.

* 1. Which country do you live in?

- ◯ South Africa
- ◯ United Kingdom

* 2. Are you...

- ◯ Male
- ◯ Female

* 3. What is your first language?

- ◯ English
- ◯ Other (please specify)

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

3. Demographic Information

For the next few questions, please write your answer (in words or numbers) in the blocks below each question.

* 4. How old are you?

* 5. What grade are you in?

* 6. What is the name of your school?

7. How would you describe your racial background or ethnicity?

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

4. Online Behaviours

The following questions ask about your access to the internet and different technology. Please answer all the questions.

8. Do you have your own mobile phone?

- ◯ Yes
- ◯ No

9. Do you have a computer at home which lets you go on the internet?

- ◯ Yes
- ◯ No

10. In which room in your home do you usually use the computer?

- ◯ I do not use a computer at home.
- ◯ I use the computer in a public part of the home such as the kitchen or living room.
- ◯ I use the computer in a private part of the home such as the study or my room.

11. Do you have access to a tablet such as an iPad?

- ◯ Yes
- ◯ No

12. Which of these are you most likely to use to go on the internet?

- ◯ Mobile phone
- ◯ Computer
- ◯ Tablet
- ◯ Other (please specify)

13. Where are you most likely to go on the internet?

- ◯ At home
- ◯ At school
- ◯ On a friend's computer, mobile phone or tablet
- ◯ At a public place like an internet cafe or library
- ◯ Other (please specify)

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Cyberbullying, Online Risks and Parental Mediation (Adolescents)

5. Online Behaviours

These questions ask about how often you use a computer, tablet or mobile phone in different settings. Please choose an answer from the options for each question.

14. In a normal week, how often do you use a computer or tablet to go on the internet?

Every day	4-6 times a week	2-3 times a week	About once a week	Never/Not weekly
○	○	○	○	○

15. In a normal week, how often do you use a mobile phone to go on the internet or to use social programmes (such as Facebook, Twitter, etc.)?

Every day	4-6 times a week	2-3 times a week	About once a week	Never/Not weekly
○	○	○	○	○

16. Compared to other teenagers my age, I spend...

- ○ Less time online
- ○ The same amount of time online
- ○ More time online

17. In a normal week, how many hours would you say you spend using the internet or any social programmes on your computer, tablet or mobile phone? (Write the number of hours per week below).

6. Online Behaviours

This section asks about how often you do specific activities online or use specific programmes. Please answer all the questions.

18. How often do you...

	Every day	4-6 times a week	1-3 times a week	A few times a month or less	Never
1...use Whatsapp, MSN messenger, We Chat, Viber or any other similar instant messaging programmes?	○	○	○	○	○
2...use Facebook, MySpace, Twitter or other social networking programme?	○	○	○	○	○
3...talk to people in chat rooms? (A chat room is an online space where a group of strangers can talk to one another in general or about a specific topic)	○	○	○	○	○
4...talk to people on the internet who you've never met in real life?	○	○	○	○	○
5...participate in websites by writing blogs, being part of discussion forums, writing comments or uploading pictures?	○	○	○	○	○
6...use programmes that involve uploading pictures or commenting on pictures such as Instagram or Snapchat etc?	○	○	○	○	○
7... use programmes that involve uploading videos or sharing videos such as YouTube?	○	○	○	○	○
8...use programmes that involve using a webcam such as Skype, Chat Roulette etc?	○	○	○	○	○
9...play interactive online games such as World of Warcraft, Second Life etc?	○	○	○	○	○
10...go on websites to read or post anonymous comments such as AskFM etc?	○	○	○	○	○

19. Please list some examples below of websites or programmes that you use most often on your computer, tablet or mobile phone.

* 20. Which of the following activities do you do MOST when you are on the internet? (You may choose a maximum of 3 responses).

- [ ] Doing homework
- [ ] Playing games
- [ ] Chatting with friends/Instant messaging
- [ ] Chatting with strangers
- [ ] Being part of online discussions or forums
- [ ] Downloading music or movies
- [ ] Social networking with friends or relatives
- [ ] Surfing/browsing the internet
- [ ] Other (please specify)

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

7. Online Behaviours

The next few questions ask about your skills in using the internet. Choose the answer that best describes your level of skill for each question.

21. How would you rate your skills in using the internet or programmes on your computer, tablet or mobile phone...

	Very Poor	Poor	Fair/Average	Good	Very Good
...in general?	○	○	○	○	○
...compared to other teenagers your own age?	○	○	○	○	○
...compared to your parents?	○	○	○	○	○

22. Do adults in your home ever ask you for help to do certain tasks for them on the computer, tablet or on the mobile phone?

- ○ Yes
- ○ No

8.

23. Please write down examples below of some of the tasks you sometimes do for adults in your home. (If you do not help adults with tasks then please skip this question).

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

9. Perceptions of the internet

This section is made up of statements that describe the way some people feel about the internet. Please choose a response that best shows how you feel about each statement.

24. How much do you agree or disagree with each of the following views about the internet?

	Strongly Agree	Agree	Neutral/ Not sure	Disagree	Strongly Disagree
1. The internet is an important way for teenagers to search for information, talk to each other and be entertained.	○	○	○	○	○
2. The benefits of the internet are far bigger than any dangers.	○	○	○	○	○
3. I worry about things that can go wrong when I am on the internet.	○	○	○	○	○
4. Adults make too much of a fuss when it comes to the risks of the internet.	○	○	○	○	○
5. In my experience, the internet is very safe.	○	○	○	○	○
6. I feel I can handle the risks of the internet better than most teenagers my age.	○	○	○	○	○
7. I would not know what to do if I was faced with a dangerous situation on the internet.	○	○	○	○	○
8. I cannot control the things that can happen to me on the internet.	○	○	○	○	○
9. I am afraid of being harassed or threatened on the internet, tablet or cellphone.	○	○	○	○	○
10. It is important that adults keep a watch over teenagers' internet behaviours.	○	○	○	○	○
11. Information on the internet should not have an age restriction; anyone should be able to make their own decisions and access anything they want.	○	○	○	○	○
12. People on the internet are usually honest about who they are.	○	○	○	○	○
13. Access to the internet helps me with my homework.	○	○	○	○	○
14. I discover useful things online that I didn't know.	○	○	○	○	○
15. Children who don't have internet are at a disadvantage compared to those who do have internet.	○	○	○	○	○

10. Online Risks

This section is made up of statements that describe the way some people use the internet. Please choose an answer that shows how much each statement is similar to you and the way you use the internet.

25. How similar is each statement to you and the way you use the internet?

	Strongly Agree	Agree	Neutral/ Not sure	Disagree	Strongly Disagree
1. I spend more time with friends online than friends in real life.	◯	◯	◯	◯	◯
2. I usually trust people I meet on the internet.	◯	◯	◯	◯	◯
3. I am more comfortable talking to people online than in real life.	◯	◯	◯	◯	◯
4. I would give out personal information about myself online to win a prize.	◯	◯	◯	◯	◯
5. I check my security and privacy settings on my social networking profile (eg. Facebook) or websites I visit.	◯	◯	◯	◯	◯
6. I often talk to strangers on the internet for fun.	◯	◯	◯	◯	◯
7. I have sent my picture to someone I met on the internet.	◯	◯	◯	◯	◯
8. It's easier to make friends online than in real life.	◯	◯	◯	◯	◯

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

11. Online Risks

The next section asks about some of your online experiences. Please be honest and remember that your responses are anonymous and confidential. You do not have to answer anything you are uncomfortable with.

26. Have you known at least one person online who you only talked to online and have never met face to face?

- ◯ Yes
- ◯ No

27. Have you met face to face with someone that you first met on the internet?

- ◯ Yes
- ◯ No

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

12.

The next two questions apply to you if you have met someone face to face that you had first met on the internet. If you have never met someone from the internet in person, please skip to question 31.

28. Before you met this person face to face, did you tell an adult about it?

- ◯ Yes
- ◯ No

29. When you met this person face to face, what was your experience like of the meeting? (Write a short description below.)

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

13. Online Risks

The following questions ask about some of your online experiences. Please answer if you have ever done any of these or experienced any of these in your life. Please be honest and remember that your responses are anonymous and confidential. You do not have to answer anything that you are uncomfortable with.

30. I have pretended to be someone else (eg. different age, sex, appearance, personality etc.) in a chat, instant message programme, social network, email or any other online space.

Never	Once	2-3 times	4-5 times	6 or more times
○	○	○	○	○

31. I have blocked or prevented someone from contacting me in a chat, instant message programme, social network, email or other online space.

Never	Once	2-3 times	4-5 times	6 or more times
○	○	○	○	○

14.

32. When you blocked or prevented someone from contacting you in a chat, instant message programme, social network or email, why did do this? (Please write an answer below). If you have never blocked someone, skip to the next question.

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

15. Online Risks

The following questions ask about online relationships. Please answer honestly and remember that your answers are anonymous and confidential. You do not have to answer anything that you are uncomfortable with.

33. I have been romantically involved with someone online that I never met in person but knew through chat, instant messaging programme, social network, email or any other online space.

Never	Once	2-3 times	4-5 times	6 or more times
○	○	○	○	○

34. I have been romantically involved with someone in real life that I first met through chat, instant message programme, social network, email or any other online space.

Never	Once	2-3 times	4-5 times	6 or more times
○	○	○	○	○

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

16. Online Risks

The next few statements are about things you may have seen on your mobile phone, tablet or the internet either by accident or on purpose. Please answer honestly and remember that your answers are anonymous and confidential. Remember: You do not have to answer anything that you are uncomfortable with.

35. How often have you seen any of the following while using the internet?

	Never	Once	2-3 times	4-5 times	6 or more times
1. I have seen sexual pictures or videos on the internet.	○	○	○	○	○
2. I have seen violent pictures or videos of physical fights, accidents or abusive behaviour towards humans or animals.	○	○	○	○	○
3. I have seen pictures and videos or read information that is mean or hateful to people of a different race, ethnicity or religion.	○	○	○	○	○
4. I have seen information on the internet that supports extreme diets and eating habits.	○	○	○	○	○
5. I have seen information on the internet about suicide or hurting oneself.	○	○	○	○	○

36. Out of the 5 previous statements, how many of them did you look at on purpose? (Write a number out of 5).

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

17. Online Risks

The next few statements are about things you may have sent or received on your mobile phone, tablet or computer. Please be honest and remember that your answers are anonymous and confidential. Remember: You do not have to answer anything that you are uncomfortable with.

37. How often have you done or experienced the following?

	Never	Once	2-3 times	4-5 times	6 or more times
1. I have received a sexual comment or sexual picture from an online stranger.	○	○	○	○	○
2. I have received a sexual comment or sexual picture from someone I know.	○	○	○	○	○
3. I have sent a sexual comment or sexual picture to an online stranger.	○	○	○	○	○
4. I have sent a sexual comment or sexual picture to someone I know.	○	○	○	○	○

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

18. Online Risks

This section asks about how much you think your parents know about what you do online. Please answer all the questions.

38. How open are you with your parents about what you are doing on the internet or programmes you use on your computer, tablet or mobile phone?

Not at all	A little	Fairly open	Very open	Completely open
○	○	○	○	○

39. On the internet, your computer, tablet or your mobile phone, how much would you say your parents KNOW about...

	Nothing or very little	A little	An average amount	Quite a bit	A lot or almost everything
1... how you are behaving?	○	○	○	○	○
2... who you are in contact with?	○	○	○	○	○
3... what you are watching or reading?	○	○	○	○	○
4... what you are doing in general?	○	○	○	○	○

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

19. Online Risks

40. If your parents knew everything you did on the internet, your computer, tablet or mobile phone, how CONCERNED would they be about…

	Not at all concerned	A little concerned	Fairly concerned	Very concerned	Extremely concerned
1... how you are behaving?	○	○	○	○	○
2... who you are in contact with?	○	○	○	○	○
3... what you are watching or reading?	○	○	○	○	○
4... what you are doing in general?	○	○	○	○	○

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

20. Cyberbullying perceptions and experiences

The following statements talk about some things that teenagers can experience on the internet. Read through the following statements and show how often you have experienced each of these in your life. Please answer all the questions.

41. In any online space that you access on the computer, tablet or mobile phone, how often have you...

	Never	Once	2-3 times	4-5 times	6 or more times
1... been called a hurtful name or received a hurtful or rude comment, email, text message or message in general?	○	○	○	○	○
2... had rumours or gossip spread about you on the internet?	○	○	○	○	○
3... received threatening emails, texts, messages or calls from someone?	○	○	○	○	○
4... had someone take a private message you sent them and forwarded it to others or posted it online for all to see?	○	○	○	○	○
5... had someone take or put up a picture of you online to embarrass you?	○	○	○	○	○
6... had someone pretend to be you online by creating a fake profile or by going into your account without your permission?	○	○	○	○	○
7... received messages as if they were coming from one person but you later found out were written by someone else?	○	○	○	○	○
8... had comments or questions posted about you to hurt you or embarrass you on the internet?	○	○	○	○	○
9... been scared or worried about something someone said to you on the internet?	○	○	○	○	○
10... been hurt or made to feel sad about something someone said on the internet?	○	○	○	○	○
11... not wanted to go school on some days because of something someone did or said to you on the internet?	○	○	○	○	○

If you experience any of these behaviours more often, please write down more details about how it happens, how often you experience it and any other information your are willing to include.

42. What kinds of things are teenagers your age most likely to be bullied about on the internet? (Please write your answer in the box below).

43. Where do you think any of the above bullying behaviours are most likely to happen to someone your age? (Choose all the options that apply).

- [ ] Text messages on mobile phones
- [ ] Phone calls
- [ ] Emails
- [ ] Chat rooms
- [ ] Instant messaging
- [ ] Social networks
- [ ] Websites and blogs
- [ ] Internet gaming
- [ ] Other (please specify)

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

21. Cyberbullying perceptions and experiences

44. When you experienced any bullying on the internet, did you know the person responsible?

- ◯ Yes
- ◯ No
- ◯ I did not experience any internet bullying

45. When you experienced any bullying on the internet, did you tell someone about it? (If you told more than one person please indicate who you told first).

- ◯ I did not experience any internet bullying
- ◯ Nobody
- ◯ Friend
- ◯ Parent
- ◯ Sibling
- ◯ Relative
- ◯ Acquaintance
- ◯ School counsellor
- ◯ Teacher
- ◯ School principal
- ◯ Other (please specify)

46. If you experienced any bullying on the internet, can you describe the way it made you feel? (Write your response below.)

25

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

22. Cyberbullying perceptions and experiences

47. How serious do you think internet bullying is for teenagers your age?

Very serious	Somewhat serious	Not sure/Neutral	Not really serious	Not serious at all
◯	◯	◯	◯	◯

48. When using the internet on your computer, tablet or mobile phone, how often do you witness someone else being bullied?

Never	Rarely	Sometimes	Often	Very often
◯	◯	◯	◯	◯

49. Has someone you know, like a friend or sibling, ever been bullied on the internet?

- ◯ Yes
- ◯ No
- ◯ I don't know

26

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

23. Cyberbullying perceptions and experiences

The next section asks about some of your behaviours on the internet. Please be honest and remember that your answers are anonymous and confidential.

50. How often have you...

	Never	Once	2-3 times	4-5 times	6 or more times
1... called someone a hurtful name or sent a hurtful or rude email, text or message to someone?	○	○	○	○	○
2...spread rumours or gossip about someone on the internet?	○	○	○	○	○
3... sent threatening emails, texts, messages, or made threatening calls to someone?	○	○	○	○	○
4... taken a private message someone sent you and forwarded it to others or posted it online for all to see?	○	○	○	○	○
5... taken or put up a picture of someone and posted it online to embarrass them?	○	○	○	○	○
6... pretended to be someone else by using a fake profile or going into someone's account without their permission?	○	○	○	○	○
7... sent a message as if it was coming from another person?	○	○	○	○	○
8... posted comments or questions to hurt or embarrass someone on the internet?	○	○	○	○	○

51. If you have comments or want to provide any details about the behaviours above, please write them in the box. This is your opportunity to add more descriptions, explanations or opinions.

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

24. Parental Mediation

This section asks about how adults try to deal with internet risks and the rules they have in place at home. Please read through the statements and choose an answer that shows how much you agree or disagree with each statement.

52. How true are each of these statements for you?

	Strongly Agree	Agree	Neutral/ Not sure	Disagree	Strongly Disagree
1. In general, adults do not know what teenagers are doing on the internet, computers, tablets or mobile phones.	○	○	○	○	○
2. My parents have a good understanding of the programmes and activities I use/do on the internet, computer, tablet or mobile phone.	○	○	○	○	○
3. Most of the time I can do whatever I want online without anyone checking up on me.	○	○	○	○	○
4. Adults should not be involved in what teenagers do on the internet, computer, tablet or on mobile phones.	○	○	○	○	○
5. I have rules I have to follow at home when using the internet, computer, tablet or mobile phone.	○	○	○	○	○

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

25. Parental Mediation

53. Please read through the statements below and choose an answer based on how often you have to do any of these behaviours at home.

When I am at home, I have to ask...

	Always	Often	Sometimes	Rarely	Never
1... when I can be online.	○	○	○	○	○
2... how long I can be online.	○	○	○	○	○
3... what websites I can visit.	○	○	○	○	○
4... when I want to send an email.	○	○	○	○	○
5... when I want to use a chat room.	○	○	○	○	○
6... when I want to go on a social network like Facebook.	○	○	○	○	○
7... when I want to download music or movies from the internet.	○	○	○	○	○
8... whether I can send or share pictures or videos.	○	○	○	○	○
9... when I want to use an instant messaging programme.	○	○	○	○	○

54. It is easy to get around rules in my home about internet, computer, tablet or mobile phone use.

Always	Often	Sometimes	Rarely	Never
○	○	○	○	○

55. If I break any rules about the internet, computer, tablet or mobile phone at home, there are consequences or punishments I have to face.

Always	Often	Sometimes	Rarely	Never
○	○	○	○	○

26.

56. Write down some of the consequences or punishments that you face when you break the rules at home about internet, computer, tablet or mobile phone use. (If there are none, leave the box blank).

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

27. Parental Mediation

The next few questions ask about ways adults in your home may have acted. Please answer how true each one is for you and your home.

57. Has a parent or other adult in your home done any of the following?

	Yes	No	I don't know
1. Installed a programme to prevent you from getting junk mail or viruses on the internet?	◯	◯	◯
2. Installed a service that tracks the websites or programmes you have used on the internet, computer, tablet or mobile phone?	◯	◯	◯
3. Installed a programme that blocks or filters certain websites you can go to on the internet, computer, tablet or mobile phone?	◯	◯	◯
4. Installed a parenting feature or programme that allows you to only spend a certain amount of time on the internet or programmes?	◯	◯	◯
5. Told you which friends or contacts you can add to a social networking profile or instant messaging service?	◯	◯	◯
6. Checked up on your social networking profile, email account or read your messages in an instant message programme, chat room or text messages?	◯	◯	◯
7. Checked which websites you have been on?	◯	◯	◯
8. Looked over your shoulder, stayed in the same room or generally kept an eye on you when you are using the internet, computer, tablet or mobile phone?	◯	◯	◯

58. Has a parent or other adult in your home ever done any of the following?

	Yes	No	I don't know
1. Talked to you about what to do if something on the internet, computer, tablet or mobile phone bothered you?	◯	◯	◯
2. Helped you when something bothered you on the internet, computer, tablet or mobile phone?	◯	◯	◯
3. Suggested ways to behave towards other people on the internet or certain programmes on your computer, tablet or mobile phone?	◯	◯	◯
4. Suggested ways you can use the internet, computer, tablet or mobile phone safely?	◯	◯	◯
5. Explained why some websites or programmes can be good or bad?	◯	◯	◯
6. Helped you when you found something difficult to do or search for on the internet, computer, tablet or mobile phone?	◯	◯	◯

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

28. Parental Mediation

59. How often have you done any of the following?

	Never	Once	2-3 times	4-5 times	6 or more times
1. I have taken actions to protect my online privacy from my parents.	○	○	○	○	○
2. I have deleted emails or other messages so nobody could read them.	○	○	○	○	○
3. I have minimised or closed windows or programmes or hid my tablet or mobile phone when someone else came into the room or too close to me.	○	○	○	○	○
4. I have deleted the internet history which shows the websites I have been on.	○	○	○	○	○
5. I have hidden or mislabelled files to keep them hidden.	○	○	○	○	○

60. Have you ever done anything else (other than the actions mentioned in the previous question) in order to make sure that your parents don't know what you do on the internet, computer, tablet or mobile phone?

- ○ Yes
- ○ No

29.

61. Please write an example of some of the actions you have taken. (If you haven't, leave the box blank).

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

30. School Mediation

The last few questions in the survey ask about your school. Choose a response based on how true each statement is for your school.

62. Has your school done any of the following?

	Yes	No	I don't know
1. My school has rules about which websites I can go on.	◯	◯	◯
2. My school has rules about cellphone use.	◯	◯	◯
3. My school has rules about the amount of time I can spend on the internet.	◯	◯	◯
4. My school has blocking or filtering programmes that prevent me from using certain programmes or getting into certain websites.	◯	◯	◯
5. My school has stricter rules about internet, computer, tablet or mobile phone use than the rules in my home	◯	◯	◯
6. It is easy to get around rules about internet, computers, tablets or mobile phones at school.	◯	◯	◯
7. My school has consequences for breaking rules about the internet, computer, tablet or mobile phone use.	◯	◯	◯

63. Please write down some of the consequences for breaking the rules about the internet, computers, tablets or mobile phones at school.

64. Has your school ever done any of the following?

	Yes	No	I don't know
1. Talked to you about what to do if something on the internet, computer, tablet or mobile phone bothered you?	○	○	○
2. Helped you when something bothered you on the internet, computer, tablet or mobile phone?	○	○	○
3. Suggested ways to behave towards other people on the internet or certain programmes on your computer, tablet or mobile phone?	○	○	○
4. Suggested ways you can use the internet, computer, tablet or mobile phone safely?	○	○	○
5. Explained why some websites or programmes can be good or bad?	○	○	○
6. Helped you when you found something difficult to do or search for on the internet, computer, tablet or mobile phone?	○	○	○

65. Do you have any other comments or opinions you would like to share about the way teenagers experience the internet or anything else covered in this questionnaire? (Write it in the box below).

Cyberbullying, Online Risks and Parental Mediation (Adolescents)

31. Thank You!

Thank you very much for taking the time to complete the survey!!!

This research is very new in the field of Psychology and your time and participation is very valuable. The general results of the study will be made available to your school. If you would like to be contacted personally about the results of the study or have any other questions or comments, please contact the researcher: masa.popovac@buckingham.ac.uk

Once again, thank you very much for being a part of this exploratory research!

APPENDIX G

RESEARCH PARTICIPANT INFORMATION SHEET

Study Title – *Safe to Surf? Behaviours and perceptions of adolescents and their parents regarding cyberbullying, online risk and parental mediation: A longitudinal cross-cultural comparison between the United Kingdom and South Africa*

What is the purpose of this study?

This research looks at the nature of online behaviours of teenagers and their parents in general and, more specifically, their experiences of online risks and cyberbullying. The study also examines perceptions relating to online risks and cyberbullying as well as the presence of monitoring and supervision of internet use in the home and at school. This information is used in order to highlight the potential differences in behaviours, experiences and perceptions between different age groups as well as differences between adolescent and parent perceptions in two countries (the United Kingdom and South Africa).

Why is the study important?

There has been a surge in the use of information and communication technologies over the past few decades, but research in the field is still in its early stages. Despite the countless benefits that technology can provide such as allowing for a quick and easy increase in knowledge, technology also has the potential to expose individuals to a number of online risks and online aggressions that can have detrimental consequences for both children and adults. This study adds to the knowledge in the field by highlighting the differences in online behaviours, experiences and perceptions of teenagers and adults across time and between countries. This information can be used to inform strategies and solutions to teachers, parents and children to support a safer online environment.

Why have I been chosen?

The researcher has selected three schools in the United Kingdom and three schools in South Africa to form part of the study. All adolescents between the ages of 13 to 17 years as well as a parent of each adolescent in each school is invited to take part in the study.

What is asked of me?

If the participant agrees to be a part of the study, they will be asked to complete a questionnaire that is approximately 40 minutes in length. This process will take place at a convenient time for the school, parent and child to ensure no significant disruption to academic or other activities. All participation is voluntary and information sheets and assent forms being distributed. Participants may withdraw from the study at any point without any repercussions whatsoever. In the event of withdrawal from the study, data already collected will be retained for use in the research. In consenting to this research the participant agrees that their data may be kept for future study.

What will happen to my data?

Any information that the participant provides is strictly confidential and only the researcher and her

supervisor will have access to the data. Information that the participant provides will not be traced back to them or be made available to any other parties at any stage of the process. The information will be stored in a password-protected computer database. While your personal responses will not be traced back to you individually, the general results of the study will be made available to the school and to individuals on request once the data has been analysed.

What will happen to the results of the data I provide?
This research will form a PhD thesis and the results of the study will be published in academic journals. It will also be disseminated at research seminars and relevant meetings and conferences in an effort to expand knowledge in this research field and to create awareness, social support and intervention strategies in relation to the important aspects that emerge from the study. If you would like a copy of the report upon completion of the study, please let the researcher know.

Who is organising this study?
This research is organised by the University of Buckingham, Psychology Department.

Who has reviewed this study?
The study has been approved by The University of Buckingham ethical committee in accordance with local regulations. Approval has also been granted by the Western Cape Education Department in South Africa. The researcher has also undergone a clearance allowing her to conduct research with young people in the school setting in accordance with government regulations.

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APPENDIX H

ADOLESCENT SURVEY ASSENT FORM

Dear Student,

The survey you are about to fill in is looking at internet behaviours and experiences of teenagers in South Africa and the UK. This research is important because it helps us understand the way teenagers your age use the internet, some of your experiences on the internet and also asks about some of your views and opinions. There are no right or wrong answers. The answers you provide are very valuable because there hasn't been enough research on this and the information you provide can be used to make the internet safer.

Before you fill in the questionnaire, please fill in the section below. By signing this page you are stating that you are taking part in this survey willingly and that your responses may be used for the research. You may withdraw from the study at any point should you not wish to answer any further questions. Once you have filled this section in, please tear off the first page from the remainder of the survey and hand in this form and the questionnaire separately to your teacher. This ensures that your answers are confidential and anonymous. Neither your parents, teachers, nor anyone else will have access to your individual responses but your school will get feedback about the results in general.

My name: _____

My grade: _____

My school's name: _____

Signature: _____

Date: _____

Please answer the questions on all of the survey pages. The questionnaire is printed on both sides!

APPENDIX I

FOCUS GROUP ADDITIONAL QUOTES

THEME 1: Keyboard warriors: Power dynamics, disinhibition and safety behind the keyboard

- **Sub-theme: Anonymity**

Quote 1.1:

> *"[It could just be] anyone because I read this thing where it was a really popular person who was getting bullied by someone who wasn't popular and it's just the whole fact that you can be someone completely different online than you are in reality. " - (Male Adolescent, UK)*

Quote 1.2:

> Female Adolescent 1 UK: Describing an online program used by teenagers her age] *"It's a website where you can ask people questions and you can either choose to ask them the question as yourself because it's connected to Facebook or Twitter. You can choose to ask them by yourself or ask anonymously."*
>
> Male Adolescent 1 UK: *"You don't even have to be signed in."*
>
> Female Adolescent 1 UK: "*Yeah, you don't even have to sign in and then you just have to ask a question and you can be anonymous."*
>
> …[some lines omitted]…
>
> Female Adolescent 1 UK: *"It's recently gotten to the point where people are just hating people on it."*
>
> Female Adolescent 2 UK: "*It's a bully site."*

Quote 1.3:

> Female Adolescent 1 SA: *"Yoh*[39]*, the things they say about people and that could be, that is to me, from what I understand, that would be a perfect example of cyberbullying because you*

[39] This is a colloquial expression in South Africa, similar to 'wow'.

don't know who the person is and you can't just, sometimes people get satisfaction out of accusing someone but there you can't because you don't know who it is, anybody can use your name."

Interviewer: "*So you don't have to write your name when you write something?"*

Female Adolescent 1 SA: "*No, you can use or make up a name."*

Interviewer: "*...Do you think that's worse than if the person put their name and you knew where it was coming from?*

Several Participants: *"Yes!"*

Interviewer: *"Why?"*

Female Adolescent 1 SA: "*Because if you know who the person is you can at least reason with the person and ask 'why would you do something like that?' and you can tell the person 'you're hurting my feelings'."*

Female Adolescent 2 SA: *"And if you don't know who the person is it's like someone's always watching what you're doing and it's weird."*

Female Adolescent 1 SA: [laughs] *"Yes! It's going to make you worry…"*

Female Adolescent 2 SA: *"...Paranoid."*

Female Adolescent 1 SA: *"... It's like 'I can't do that because just now someone's going to see'."*

Female Adolescent 2 SA: *"And you don't know who your friends are."*

Quote 1.4:

This quote is by an SA teacher who had anonymous sexual comments posted about her online.

"Maybe we're going off track because we're looking at social networks where you as a person who posted the initial comment can be traced to an email address. I think where the problem comes in is, you know, where you can post things anonymously and they cannot link it to you and that is where most of this kind of issue is emanating from. It is, that is the biggest problem. It's not so much what they say about you because you can actually psychologically convince yourself 'no, this is nonsense. You know what, I'm bigger than this, I won't let it

affect me'. But the mere fact that you do not know who it is and this person could be in your physical space, this person could be someone in your residential area, someone that you are actually physically in contact with and this person could take it to the next level, that is the scariest part of all. And especially when it comes to issues of a sexual context because, I'll be very honest with you, in the weeks following this last posting my husband bought me this pepper spray. I actually felt that 'well, if this is what people are saying about me and my body and their desires, someone might just [pause], and it was in the exam time, I might be alone upstairs, I'm vulnerable, you know? Someone might just act on whatever they're posting and I'm at risk, so I actually felt afraid to be alone and I think that is how learners feel as well because I can identify, I've gone through it." - (Female Teacher, SA)

- **Sub-theme: Cyberbullying as a Retaliatory Tool**

Quote 1.5:

Interviewer: "*And what would the motive be, for example?"*

Female Adolescent 1 SA: *"Ok, maybe for an example, say you [turns to participant 2] are dating Nathan and then she [turns to participant 3] like steals Nathan from you and you're like jealous and mad and want to get back at her."*

Interviewer: "*So you wouldn't confront her face-to-face, you'd rather do it on chat."*

Female Adolescent 1 SA: *"Yes, something like that. I think people do things like that because they know…"*

Female Adolescent 2 SA: *"To protect themselves."*

Female Adolescent 1 SA: *"Ja [Translation: Yes], to protect themselves and also to like, like she made the example now, if she was the one that took my boyfriend and I would know that she wouldn't want everybody to know about it and everybody on her social networks then I would go and put it on there to make her look like the bad one and me look innocent. And also, I've seen a lot of times where girls like, even though they're innocent they still try to get people to side with them. There's always two sides to a story and nobody is always completely innocent so then sometimes the girls would do that to get the attention of more people siding with them than actually listening to the other girl, the other person."*

Quote 1.6:

> *"It's a difficult thing because there might be a trail of stuff behind the comment that came as well from the other person. So the other person retaliated and thought 'I've had enough of this now, I'm just going to do this' and bang, comment on Facebook and that's it and then all hell breaks loose."* - (Female Teacher, UK)

Quote 1.7:

> *"And we do have an angry society on our hands and we see this with the children we are teaching, they're angry. They get angry at little things that don't make sense later on to them, so all this eventually ends up on cyberspace."* - (Female Teacher, SA)

THEME 2: Control and Perceived Vulnerability to Online Risks

- **Sub-theme: It can happen to anyone vs. It happens to others**

Quote 2.1:

> Female Adolescent 1 UK: *"The thing with Facebook is that, people just, they don't really, they're not careful anymore who they add anymore because they kind of like, for example, if like people don't think 'oh I'm not going to add them' when they see there's like a mutual friend. It's like 'I don't really know you but we have a mutual friend so ok I'll add you'."*
>
> Female Adolescent 2 UK: *"Yeah, they don't really know you but they think 'Ah well, I'll just add you'."*
>
> Female Adolescent 1 UK: *"But like people aren't really careful and from that they can get bullied and stalked."*

Quote 2.2:

> Female Adolescent 1 UK: *"Like some people will have, I don't know, like a moment where they feel the need to do something stupid or like send a certain inappropriate picture."*

Male Adolescent 1 UK: *"They don't think of the consequences right? Like a picture of someone doing something... you'd think it would be safe with someone and then you get surprised and it gets sent around and it gets worse and worse."*

Quote 2.3:

Female Adolescent 1 UK: [Discussing 'Snapchat' program in relation to cyberbullying and how teenagers send inappropriate pictures] *"Apparently there's a massive do about this thing."*

Male Adolescent 1 UK: *"Of course there is."*

Female Adolescent 2 UK: *"Yeah, for the retards that take photos and post stuff like that."*

- **Sub-theme: "They are more vulnerable than they think" - Teenagers are putting themselves in danger**

Quote 2.4:

"The other worrying thing about Facebook with a lot of teenagers is the fact that they just accept anybody as a friend. It seems to be that they just want to have all these friends on Facebook even though they don't know them. If I get some random people who want to be friends with me on Facebook and I don't know them, I just ignore. But I know a lot of kids would accept it… You never know who you are accepting as a friend and who their friends are [and who] can see you on the other side." - (Mother, UK)

Quote 2.5:

Female Teacher 1 SA: [Talking about accepting strangers on social networks] *"And that's when they become exposed to all sorts of bullying or these hate…"*

Female Teacher 2 SA: *"Because it's almost like a, a competition."*

Quote 2.6:

Female Teacher 1 UK: *"But they must realise that in this day and age, with mobile phones… you can screenshot everything."*

Male teacher 1 UK: *"They realise it but they don't know, they don't fully understand."*

THEME 3: Characteristics of Cyberbullying

- **Sub-theme: A fine line between Cyberbullying and playful teasing**

Quote 3.1:

Male Adolescent 1 UK: *"It does happen a lot but personally I haven't gotten hate or anything, but I know other people have got. Thing is, if you can take it light and not exaggerate it and laugh, and people like to have a go on AskFM[40] because they think it's fun to use because of the questions you can get."*

Female Adolescent 1 UK: *"It's like what [name omitted] said: If you see it from one point of view and that person is having a really bad time with that and it's affecting them negatively, but from another point of view they could be having a massive laugh out of it. Someone could be getting abuse through it but someone else is laughing because they're being asked really funny questions..."*

Male Adolescent 1 UK: *"That's why it's used. That's why it's popular."*

Female Adolescent 2 UK: *"Yeah, that's the point of it but other people are being abused through it. So it depends what you take from it."*

Quote 3.2:

"It think it also kind of depends on the person as well. If the person's like really depressed and they go kill themselves. You know, they might think well 'what's the point' but if that

[40] ASKfm is a social networking site where users send each other questions. They have the option of doing so anonymously or they can create profiles.

person's already really happy with themselves you don't just go kill yourself…" - (Female Adolescent, UK)

Quote 3.3:

"One thing is that, sometimes they're all good friends and they know each other well and when they say it to each other's face they know how the other person intends it to sound and they know whether it's a joke or not. Therefore, they know how to respond to it. But I think sometimes if you put those things online or in a text message, it is difficult to sort of judge, you know, is it a joke or you know. Yeah, I think it's easier to take offence." - (Female Teacher, UK)

Quote 3.4:

"If it was constant it gets quite personal. If it's just one or two [comments] you can just disregard it, it's nothing. If it happened a lot it would be hard, I would probably really take it to heart." - (Male Adolescent, UK)

Quote 3.5:

"If it happened just once I'd probably ignore it but if it happened continuously I'd probably tell someone." - (Female Adolescent, UK)

- **Sub-theme: Forms of Cyberbullying**

Quote 3.6:

"And there's this girl in our school, I think it was last year, she was in grade 9 and they actually printed the picture and sent it around the school. They actually [pause], she saw it and she just started crying right in the middle of the field." - (Female Adolescent, SA)

Quote 3.7:

> *"My daughter's friend did a picture, like an inappropriate picture…They can take a picture of that can't they? They just take a snapshot of Snapchat and that's there for life."* - (Mother, UK)

Quote 3.8:

> *"I saw one about [pause], someone was putting old photos on this, I was reading old conversations and there was a comment saying 'Who's the fat one in that?'. And that to me was the classic thing and I just thought I would hate anyone doing that to my kids."* - (Mother, UK)

Quote 3.9:

> *"The boys school that I was working at last year, there was a case where they video'd a fight in a break time in the playground and then YouTube'd it and commented on that fight online."* - (Male Teacher, UK)

THEME 4: The Generational Gap: Perceptions and Skills relating to Technology

Quote 4.1:

> *"They live almost in a different world… The virtual world is very much a big part of their lives and, again, we know it but we don't fully understand that they're living separate lives."* - (Male Teacher, UK)

Quote 4.2:

> *"They don't see it separate like we do. We see going online as an occasional, separate event, like cyberbullying is this thing that's out there but it's not for them. They're so integral with their everyday life, eating, texting, Facebooking, have the radio on, all of these things are going on all at once for them."* - (Mother, UK)

Quote 4.3

Mother 1 UK: *"JK. LOLZ."*

Mother 2 UK: *"I said that to [my daughter] once and she goes 'Mum, you're far too old'."*

[Group laughs]

Mother 3 UK: *"That's the thing, I don't understand all the different acronyms… I've had to go to my daughter 'what does this mean?'… Can you translate this please?"*

Quote 4.4:

Mother 1 UK: *"And you know what, it's like Wall-E. You know that movie? They're all sat there, looking at these screens and life is actually passing them by. You know, you say 'just put that away and look, get away from the screen'. You are all just sitting in your chairs and you are all focusing on that."*

Mother 2 UK: *"Yeah, we don't need to get out of the chair."*

Mother 1 UK: *"No, you don't even need to look at the person next to you."*

Quote 4.5:

"People do not care. You don't say hello to people as much, do you? And it's just that whole structure has changed and every generation that goes down gets destroyed a bit more and sometimes I look and think, I don't know what their children are going to be growing up amongst because at the moment it's a downward spiral." - (Mother, UK)

Quote 4.6:

"Also with social media, the kids don't talk to each other, they prefer to go on BBM to each other. I mean, my daughter was sitting here, her friend was sitting there but they prefer to BBM about something that's happening around them and I said 'But why don't you talk?', 'No, it's better to do it this way'. So that's what I'm saying, even the emails, they email each other on a regular basis, they Facebook each other, they cannot do without it. It's like their, you know, fifth appendage, they cannot do without social networking, cellphone. And if we as

parents don't expose them to, or as a school take away their cellphone, we are causing more harm to them, they are social misfits then. What happens then?" - (Female Teacher, SA)

Quote 4.7:

"Things get upgraded so quickly, so they want the new one that's just come out. But they just got the other one a year ago and the next one comes out and they want that one." - (Mother, UK)

Quote 4.8:

"Hulle kyk vir en compare phones. My dogter het nou die ander dag na my toe gekom en gesê sy wil 'n beter foon hê. So sê ek vir haar [Translation: They look at and compare phones. My daughter came to me the other day and said she wants a better phone. So I said to her:] 'What's wrong with this phone?'. So she couldn't give me an answer but then I saw her friend has a new phone… The children just want to be in. If it's a Blackberry, then they want a Blackberry. If it's that, it's that." - (Mother, SA)

Quotes 4.9:

Mother 1 UK: *"I don't understand, like you said, I can't work out the systems on my phone and anything like that and I think that's the frustrating thing from my point of view, is that I don't really understand what I'm doing so I can't probably understand what they're doing fully."*

Mother 2 UK: *"And they DO know what they're doing."*

Mother 3 UK: *"They are far more technically astute."*

Quote 4.10:

"And that is true, when I need to get something done on the computer…. And I can do it but it's going to take me a very long time. And it's because it's their world. That's the world they're living in." - Female Teacher, SA)

Quote 4.11:

Female Teacher 1 UK: *"I try to stay on top of what is going on because I want to know what my kids are doing. If someone makes a comment I want to know what they're talking about so that's why I get into whatever we're told to do, you know twitter, whatever, I'm on it [laughs]. So I know what's going on because if you don't educate yourself or if we don't educate parents then they're not going to be able to monitor it."*

Male Teacher 1 UK: *"But again, there are programs on there that no one else apart from them knows about. "*

Quote 4.12:

Interviewer: "*You mentioned you wouldn't tell an adult, you'd tell a friend. Why do you think teenagers don't tell adults about what happens?"*

Female Adolescent 1 UK: *"Well because adults like …"*

Male Adolescent 1 UK: *"They just don't understand."*

Female Adolecent 1 UK: *"Yeah, like they understand it on a different level."*

Male Adolescent 1 UK: *"They don't understand the principles behind it."*

Female Adolescent 1 UK: *"They would exaggerate it and get the police involved and you don't want that."*

Interviewer: *"So they would make a big thing out of it"*

Female Adolescent 1 UK: *"Yeah, worse."*

Female Adolescent 2 UK: *"Or the opposite. They might think you're just being petty about it."*

Female Adolescent 1 UK: *"It's just every time something happens they always tell the kid 'why didn't you tell an adult?'. But it's just the fact that they think on completely different levels. Like if you told your parent, if someone was being bullied... they would take it on a completely different level. Maybe you just don't want to talk about it but the parent will keep prying… but they don't understand the fact that they're already really stressed and they just don't want to talk about it and they both end up upsetting each other about it."*

Quote 4.13:

> *"[I asked] them a couple of days ago, in fact, does it happen? You know, does cyberbullying happen? And I was met pretty much with silence. A couple of girls looked at each other but weren't willing to talk about it so I didn't want to push it any further. So I think it does probably happen but I haven't come across any examples of it."* - (Male Teacher, UK)

THEME 5: Privacy Preservation and Parental Curiosity: A Challenge for Online Mediation

Quote 5.1:

> *"My child's phone is with me and my husband in the week because of school, weekends they will get it… When it's examinations we will take the phone and switch it off because of study time. That is our way of keeping our children on track. At school the children aren't allowed with cellphones, that's a rule at school. High schools, primary schools, that is the rule. If the child is caught with the phone it is locked up and then the parent must come in to talk to the principal. So that is the rule here. I don't know about the rest of you but we have rules, there was a certain age that we allowed our children to have a cellphone. I told my eldest daughter, when you finish primary school [grade 7, 13 years] you will get a phone."* - (Mother, SA)

Quote 5.2:

> *" You can go to that child and say 'give me your phone, I want to see what is going on there' so I believe parents must also take responsibility. When I gave my child a phone, I gave her rules… If you are a responsible parent and you know your child, you will tell your child: 'Look here, I want to see what is going on there…What's going on? Give that phone here'. I took that phone and I read what was on that phone because I'm a parent and I'm responsible for that."* - (Mother, SA)

Quote 5.3:

> Mother 1 UK: *"With mine, you know, I'd like to think that I trust them but, to be honest, I do get people to stalk them and they know that I do as well because when I've done it I'd say*

'Oh, well done, we couldn't find any of you and you're completely hidden' and they're like 'What do you mean?' [laughs], 'oh, no, I checked'. I don't think it hurts them to know that you're omnipresent."

Mother 2 UK: *"Oh yeah, I mean I know both of mine's passwords so I can just go and log on."*

Quote 5.4:

"I've had to pull them quite a lot for those sorts of things. And also visibility because I'm friends with them, that's one of my stipulations so I can go on and look at them." - (Mother, UK)

Quote 5.5:

"I know parents who change the Internet password periodically so that their kids have got to say 'Ok, well, look I've done my homework, proved it, can I go on', 'Yeah here's the password'. So there's a lot more structure to it which works quite well because they know what's going on and when they're online." - (Male Teacher, UK)

Quote 5.6:

Ek moet aandag gee en ek moet die kind gemaklik laat voel… Ons het pressure, so ons moet dit so maak dat dit 'n comfort vir die kind is om na ons te kom al het jy al die pressure en goeters, maak dit dat hy die freedom het om na jou te kom en te sit en gesels. [Translation: I need to pay attention and I need to let the child feel comfortable… We have a lot of pressure, so we need to ensure that it's a comfort for the child to come to us even though you have all the pressure and stuff, make it so that they have the freedom to come to us and to sit and talk]." - (Mother, SA)

Quote 5.7:

"I think that comes in trust, having an open relationship with your child because I didn't have that with my parents but I'm doing that now with my children… I allow them their freedom, but there's a certain limit. We have boundaries and we have rules." - (Mother, SA)

Quote 5.8:

"I think it's just an extension of every day of sort of how you are with your children because every day I would hope that if they had a problem that they would come to me about it, whether it was online or not. And my daughter's, when her friends have done something and said 'this has made me really uncomfortable' and she has come to me and so I would hope the same would apply online. And that's what I keep trying to say to them, it's not special in that, you're protected in every day life and it's the same as every day life so the same rules apply, the same moral code applies, the same behavioural expectations apply. Or try." - (Mother, UK)

Quote 5.9:

"I think, it comes down to, again, at home you have certain expectations for your children, so you have the same expectations at home as what you have online. So from working in primary school I know certain parents that aren't particularly that bothered and the children have a bit more of a free rein should we say, they have far more of a free rein. Like this little girl, she's 10 and on Facebook on her own account, you know, sending messages to other children through their sister's blablabla. And mum is like 'Oh yeah, she's had it for years'. So again, I think it comes down to like a bit of general parenting as opposed to sort of more separate online…" - (Mother, UK)

Quote 5.10:

Mother 1 SA: "*Dis 'n replacement vir die tyd.* [Translation: It's a replacement for the time]."

Mother 2 SA: "*Dan sê die ouers hulle wil nie daai outcome hê nie. Maar jy het so min daar ingesit om te nou sê jy wil nie daai outcome hê nie.* [Translation: The parents then say that they didn't want that outcome. But if you put so little in you can't say that you don't want that outcome now]. You put a little in, you get a little out."

Quote 5.11:

> *"You see, problems at our school deal more with problems of drugs and dagga*[41] *or fighting or threatening a learner, things like that… That's where out behaviour problems are. If we get that out then we can deal with cyberbullying and the rest, to extend ourselves further. But another school in the Northern Suburbs, my friend is deputy there as well, she says her behaviour problems are mainly around social networking. She doesn't have one or two fights here and there and carrying a weapon, she doesn't have dagga smoking, but social networking is a major problem in her school. So she has a policy in place already at her school. Then I look at my daughter's school, there too they deal with cyberbullying cases on a regular basis… I don't know, there's nothing that we can put in place. If you look at the schools experiencing this, how should I say, it's more the affluent schools because they are more exposed to the internet at home, internet, cellphones. I mean hotshot cellphones, not any kind of cellphones, the latest on the market. So they have, their problems lie in social networking and all of that, whereas we would take a fight very seriously and they don't have those things at their school. So the more affluent you become and the more exposed you are to social networking, then the more problems you experience in the school, that's what I would say."* - (Teacher, SA)

Quote 5.12:

> *"And some of the responsibility has got to be on the parents of those children… Yes, we have them during the school day but actually it's the only time they get to talk face-to-face with each other and maybe they're not using it as much in school because they do that when they're at home."* - (Female Teacher, UK)

Quote 5.13:

> *"It's the fact that some parents don't care, don't monitor it, so maybe we need to do some work with parents as well."* - (Female Teacher, UK)

[41] 'dagga' is a colloquial South African term for marijuana.

Quote 5.14:

> *"It really depends on when it's happening because, really, if it's happening outside of school, it's not for us to deal with."* - (Male Teacher, UK)

Quote 5.15:

> *"I think if a parent was to ring in complaining that so-and-so had said this on Facebook last night, I think the school has a duty to act on that and I'm not sure I agree with that because it should be that what happens outside of school is for the parents to sort out."* - (Female Teacher, UK)

Quote 5.16:

> *"I think that we would try to involve parents, tell them 'this is what's going on, what has been said so far, you need to take action at home. We will monitor the situation at school and make sure that nothing happens in school because of what's been said on Facebook'. That's our responsibility. Definitely, that it doesn't escalate."* - (Female Teacher, UK)

Quote 5.17:

> Female Adolescent 1 SA: *"Yes, and they both have me on Facebook so they can see whatever I post [laughs]."*
>
> Interviewer: *"And how does that make you feel?"*
>
> Female Adolescent 1 SA: [Laughs] *"Like I have to think about what I write because I know they're watching."*

Quote 5.18:

> Interviewer: "*Do you have any rules at home that you have to follow when you use your cellphone or any programs?"*
>
> Female Adolescent 1 SA: *"No."*
>
> Female Adolescent 2 SA: *"Oh, when we eat at night, you're not allowed to be on your phone when you eat."*

…[some lines omitted]…

Female Adolescent 1 SA: *"Nope. It's only when it's exams, né[42]? Then they tell you [that] you must limit yourself but they don't even take your phone off anymore… They just say you must know when you must be on. They tell you [that] you must know when to be on. How must I know when I'm always going to be on my phone?* [Group laughs]."

Quote 5.19:

"I will show my mommy one photo and then she'll just go through EVERYTHING!... I'm like 'No mother'. Oh I hate it. There is some things you don't want your parents to know." - (Female Adolescent, SA)

Quote 5.20:

"I just wanted to say, personal experience now, I can't have my brother on BBM because, ok my parents are very strict, then sometimes when I like have him on BBM I couldn't make my profile what I wanted and I couldn't make my status what I wanted… Like when I made this picture of me and this other guy, he asked me why and who's that and he asked me a lot of questions. So I just preferred to delete him. But that's why on Whatsapp I don't do things like that because I have my mommy. So I like to have them on some things and the other not because some stuff's personal and the others they can know of." - (Female Adolescent, SA)

Quote 5.21:

Female Adolescent 1 SA: *"… Most of us get our phones from our parents, so when they actually buy you a phone, I mean they know, they read newspapers, they watch TV, news and things and magazines and stuff, you hear about the things that happen in social networks. So when you buy your child a cellphone, you're actually signing them up for that… You're saying 'I'm going to allow my child to', because what child is not going to go on BBM or Whatsapp or whatever? So you're saying 'Yes, I'm allowing my child to do this, to do that', but with that, from the parents' side I would say once you do that you have to put your trust in them and say 'I hope and I trust my child won't do these things'. And us, as teenagers, must*

[42] 'Né' is a colloquial Afrikaans expression similar to 'hey' in English.

try and be more responsible these days and think about ourselves and what it would do to us to go that extra mile with all the things that can, that are happening now."

Female Adolescent 2 SA: *"And we shouldn't give them a reason not to trust us."*

Female Adolescent 1 SA: *"And also parents must realise that we're growing up and we want to experience things and we want to see what things are like, so they must wait for us to come to them. There's going to be a time when we will need our parents when there's nowhere else to go because every teenager is doing the same thing that you're doing. You're going to have to go to your parents and say 'Ok, this happened and that happened, what do you think I should do?' They will be upset but they must also try to understand where you're coming from."*